# *CITY OF FLAGSTAFF*

# ***REQUEST FOR PROPOSALS***

**PRODUCT AND OR SERVICES:** UTILITY RATE CAPACITY STUDY CONSULTING SERVICES

**PROPOSAL NUMBER:** 2014-38

**PROPOSALS DUE NO LATER THAN:** 3:00 P.M., DECEMBER 10, 2013

**PRE-PROPOSAL MEETING:** 11:00 AM, THURSDAY, NOVEMBER 14TH, 2013

**TO BE HELD AT:** COUNCIL CONFERENCE ROOM, CITY HALL, FIRST FLOOR @ 11:00 A.M.

**RFP OPENING LOCATION:** ***City of Flagstaff***
***Management Services-Purchasing Division***
***211 West Aspen Ave.***
***Flagstaff, AZ 86001***
***(928) 213-2206/Fax (928) 213-2209***

In accordance with the Charter for the City of Flagstaff in Flagstaff, Arizona ("City") and by Arizona State Statute, competitive sealed offers for the products or services specified will be received by the City at the above specified location, until the time and date cited. Offers received by the correct time and date will be opened and the name of each Proposer will be publicly read.

Offers shall be in the actual possession of the City, at the location indicated, on or prior to the exact time and date indicated above. Late offers shall not be considered.

Offers must be submitted in a sealed envelope with the REQUEST FOR PROPOSAL name and number and the Proposer's name and address and the RFP closing date and time clearly indicated on the envelope. All offers must be completed in ink or typewritten. Additional instructions for preparing a proposal response are provided herein.

PROPOSERS ARE STRONGLY ENCOURAGED TO CAREFULLY READ THE ENTIRE REQUEST FOR PROPOSAL.


| | |
|---|---|
| **Buyer:** | Amy Hagin |
| **Phone Number:** | (928) 213-2276 |
| **Fax Number:** | (928) 213-2209 |
| **E-mail Address:** | ahagin@flagstaffaz.gov |
| **Date:** | November 6, 2013 |

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**CITY OF FLAGSTAFF PURCHASING DIVISION**
**211 WEST ASPEN AVE.**
**FLAGSTAFF, ARIZONA 86001**


**BUYER: AMY HAGIN**
**PH: (928) 213-2276, FX: (928) 213-2209**

# ACKNOWLEDGMENT OF RECEIPT

**RFP ISSUE DATE:** November 6, 2013

**PRODUCT AND/OR SERVICES:** Utility Rate Capacity Study Consulting Services

**PROPOSAL NO.:** 2014-38

**QUESTIONS MUST BE RECEIVED BY:** November 26, 2013

**OFFER DEADLINE**: 3:00 P.M., on December 10, 2013

Please complete and return the requested information below via Fax to the City of Flagstaff Purchasing Office at (928) 213-2209 or by mailing, in order to acknowledge receipt and to **receive notification of any addenda or responses to questions regarding this RFP.** Proposals from companies or individuals not acknowledging the addenda may be considered incomplete, non-responsive and potentially subject to disqualification.

Name of Company
or Individual: _____

Name / Title of Contact: _____

Address: _____

_____

_____

**Phone #:** (____) _____ **Fax** #: (____) _____

**E-Mail Address**:_____

Signature: _____ Date: _____

**CITY OF FLAGSTAFF PURCHASING DIVISION**
**211 WEST ASPEN AVE.**
**FLAGSTAFF, ARIZONA 86001**

**REQUEST FOR PROPOSAL No. 2014-38**
**BUYER: AMY HAGIN**
**PH: (928) 213-2276, FX: (928) 213-2209**

# NO RESPONSE FORM

Product and/or services: Utility Rate Capacity Study Consulting Services

Proposal Number: 2014-38

**Proposers not responding to this solicitation are asked to complete this form. Please return this form to the address listed above or fax to *(928) 213-2209.***

Company Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____

*Reason for NO OFFER:*

- ☐ Do not handle product/service
- ☐ Unable to respond due to current staff availability and/or business conditions
- ☐ Insufficient time
- ☐ Unable to meet terms, conditions, specifications or requirements as described within the solicitation due to:

  _____

  _____

- ☐ Other: _____

This *NO OFFER* response is authorized by: _____
Signature

_____
Title

Please check one:

- ☐ Retain our company on the mailing list for future solicitations.
- ☐ Please remove our company from the mailing list.
- ☐ Please remove our company from this commodity or service only.

# INSTRUCTIONS TO PROPOSERS

**1. PURPOSE:** Pursuant to provisions of the City Charter, as well as provisions contained in this document, the City intends to establish a contract for:

**UTILITY RATE CAPACITY STUDY CONSULTING SERVICES**

The City is seeking proposals from qualified Proposers to provide consulting services for the Utility Rate Capacity Study for the City's Utility Division. The successful Proposer shall be an approved Proposer for the equipment or services being recommended and shall provide a letter from the appropriate company or individual with a statement to that effect.

**2. PREPARATION OF PROPOSAL:**

a. Forms: All Offers shall be on the forms provided in this RFP Package. The RFP Package shall consist of all documents listed in the Table of Contents. It is permissible to copy these forms if required. Facsimiles, telegraphic Offers or mailgrams will not be considered.

b. Evidence of Intent to be Bound: The Offer document must be submitted with an original ink signature by the person authorized to sign the Offer.

c. Typed or Ink; Corrections: The Offer must be typed or in ink. Erasures, interlineations or other modifications in this RFP document shall be initialed in ink by the authorized person signing the Offer. No Offer shall be altered, amended or withdrawn after the specified RFP due time and date.

d. Unit Price Prevails: In case of error in the extension of prices in the Offer, unit price shall govern.

e. Days: Periods of time, stated as a number of days, shall be calendar days, unless otherwise specified.

f. Duty to Examine: It is the responsibility of all Proposers to examine the entire RFP Package and seek clarification in writing of any item or requirement that may not be clear and to check all responses for accuracy before submitting a proposal. Negligence in preparing an Offer confers no right of withdrawal after due time and date.

g. Submittal: All Offers must be clearly marked: **UTILITY RATE CAPACITY STUDY CONSULTING SERVICES, RFP NO.2014-38**, your name or company name and the closing date and time of this RFP on the outside of the sealed envelope. Proposals shall be provided in three ring binders with **ONE (1) ORIGINAL AND NINE (9) COPIES** of the proposal included.

**3. QUALITY OF PROPOSAL:** The quality of the proposal(s) submitted by the Proposer is viewed as a basic indication of the Proposer's general capability and technical competence. Quality is interpreted as (1) completeness, (2) thoroughness, (3) accuracy, (4) compliance with proposal instructions, and (5) the organization and conciseness of descriptive text material. Proposals that do not comply with instructions may be eliminated from further consideration.

**4. GENERAL CONTENT:** The proposal submitted should be specific and complete in every detail. It should be practical and should be prepared simply and economically, providing a straight-forward, concise delineation of capabilities to satisfactorily perform the proposal being sought. Proposers should not necessarily limit the proposal to the performance of the service in accordance with this document but should outline any additional services and their costs if deemed necessary to accomplish the scope of services.

5. **INQUIRIES:** Any question(s) related to this RFP shall be directed to the Buyer whose name appears at the bottom of the front page of this document. Questions should be submitted in writing when time permits. Proposers shall not contact or ask questions of the department for which the requirement is being procured. The City **shall not** be responsible for Proposers adjusting their proposal based on any oral instructions made by any employees or officers of the City. All changes to the RFP shall be in the form of a written addendum, which shall be furnished to all Proposers who are listed with the City as having received the original RFP.

   The City shall not respond to any requests for information pertaining to specifications received less than five working days (Monday–Friday, excluding holidays) before the proposal opening. Any interpretation or correction of the RFP documents shall be made only by written addendum and a copy of each addendum shall be mailed, faxed or delivered to all who have returned an Acknowledgement of Receipt form. The City shall not be responsible for any other explanations or interpretations of the RFP Package.

   The Buyer may be required to submit any and all questions in writing at the City's sole discretion. Any correspondence related to a solicitation shall refer to the appropriate solicitation number, page and paragraph number. However, the Proposer shall not place the solicitation number on the outside of an envelope containing questions, since such an envelope may be identified as a sealed RFP and may not be opened until after the official RFP due date and time.

6. **LATE PROPOSAL:** Late proposal responses shall not be considered. A Proposer submitting a late proposal shall be so notified.

7. **WITHDRAWAL OF PROPOSAL:** At any time prior to a specified solicitation due time and date a Proposer (or designated representative) may withdraw the Proposal. Facsimile, telegraphic or mailgram withdrawals shall not be considered.

8. **AMENDMENT OF PROPOSAL:** The Proposer shall acknowledge receipt of a Solicitation Addendum by signing and returning the Addendum form, along with the proposal response prior to the specified due time and date. Failure to return a signed copy of a material solicitation amendment or to follow the instructions for acknowledgment of the solicitation amendment shall result in rejection of the proposal.

9. **PAYMENT:** A separate invoice shall be issued for each shipment of material or service performed, and no payment shall be issued prior to receipt of material, service or construction and a correct invoice. The City's agreement for payment terms is **NET 30**, unless the Proposer offers discounted terms.

10. **DISCOUNTS:** Payment discount periods shall be computed from the date of receipt of material/service or correct invoice, whichever is later, to the date the City's warrant is mailed. Unless freight and other charges are itemized, any discount provided shall be taken on full amount of invoice. Payment discounts of ten (10) calendar days or more shall be deducted from the proposal price in determining the low proposal. However, the City shall be entitled to take advantage of any payment discount offered by the Proposer provided payment is made within the discount period.

11. **TAXES:** The City is exempt from Federal Excise Tax, including the Federal Transportation Tax. Sales tax, as required, shall be indicated as a separate item.

**12. EVALUATION AND AWARD OF CONTRACT:**

a. Unless the Proposer states otherwise, or unless otherwise provided within the RFP, the City reserves the right to make multiple awards or to award by individual line item, by group of line items, or as a total, whichever is deemed most advantageous to the City. The contract shall be awarded to the lowest responsive, responsible Proposer whose proposal is the most satisfactory and advantageous to the City based on the factors set forth in the RFP Package. The City shall be the sole judge as to the acceptability of the products or services offered.

b. Notwithstanding any other provision of the RFP Package, the City expressly reserves the right to:
   (1) Waive any immaterial defect or informality; or
   (2) Reject any or all Offers, or portions thereof; or
   (3) Cancel/Reissue an RFP.

c. All responses to this RFP are offers to contract with the City and shall substantially conform to the terms, conditions, specifications and other requirements set forth within the text of the RFP Package, including the Agreement. Offers do not become contracts unless and until they are formally accepted by the City. If the value of the services or goods in the Proposal is $50,000 or less, a contract will be formed when the City Manager accepts, in writing, the Proposer's Offer. Once the Agreement is fully executed, it will be the final and binding contract between the Proposer and the City. The Agreement may incorporate some or all of the RFP Package.

d. The City reserves the right to clarify any contractual terms with the concurrence of Proposer, however, any substantial non-conformity in the Offer shall be deemed non-responsive and the Offer rejected. No alteration of any contract resulting from an Offer may be made without the express written approval of the Director of Purchasing in the form of an official contract amendment.

**13. ENVIRONMENTAL PROCUREMENT POLICY:** The City has established an Environmental Procurement Policy which encourages the purchase of the most environmentally responsible products and services available to meet the intended purpose. We encourage the offer of alternatives that increase the environmental responsibility of the products or services called for in this solicitation.

**14. SALES TAX:** The City will not pay any taxes on invoices received unless an Arizona Transaction Privilege License Number or Arizona Use Tax Number and, if applicable, a City Sales Tax Number are listed below. The City will figure applicable taxes to offers received from out of state Proposers who do not list an Arizona Use Tax number for tabulation and total cost evaluation.

Arizona Sales Tax Number:_____

Arizona Use Tax Number:_____

City of:_____

Sales Tax Number: _____

Refer to the following to determine if the freight or delivery charges are taxable:

Delivery charges are considered non-taxable and exist only when the total charges to the ultimate customer or consumer include, as separately charged to the ultimate customer, charges for delivery to

the ultimate consumer, whether the place of delivery is within or without the City, and when the taxpayer's books and records show the separate delivery charges. **Delivery charges if separately stated are considered to be non taxable.**

Freight charges for delivery from place of production or the manufacturer to the Proposer either directly or through a chain of wholesalers or jobbers or other middlemen are deemed "freight-in" and are not considered delivery. **Freight-in charges are taxable.**

**15. NON-COLLUSION:** The Proposer shall sign a non-collusion affidavit.

# STANDARD TERMS AND CONDITIONS

**The following terms and conditions are an explicit part of the solicitation and any offer received by a Proposer in response to this RFP.**

1. **CERTIFICATION:** By signature on the Offer page, at the end of this RFP document, Proposer certifies that:
   a. The submission of the Offer did not involve collusion or other anti-competitive practices.
   b. Proposer has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the Offer. Failure to provide a valid signature affirming the stipulations required by this clause shall result in the rejection of the Offer. Signing the Offer, on page 35 of this RFP document, with a false statement shall void the Offer and any resulting contract and may be subject to penalties provided by law.

2. **GRATUITIES:** The City may, by written notice to the Proposer, cancel any resulting contract if it is found by the City that gratuities, in the form of entertainment, gifts or otherwise, were offered or given by the Proposer or any agent or representative of the Proposer, to any officer or employee of the City with a view toward securing a contract, securing favorable treatment with respect to the awarding, amending, or the making of any determinations with respect to the performing of such contract. In the event any resulting contract is canceled by the City pursuant to this provision, the City shall be entitled, in addition to any other rights and remedies, to recover or withhold from the Proposer the amount of the gratuity.

3. **OFFER BY PROPOSER:** All responses to this RFP are offers to contract with the City and shall substantially conform to the terms, conditions, specifications and other requirements set forth within the text of the RFP Package, including the sample Agreement. Offers do not become contracts unless and until they are formally accepted by the City. Formal acceptance may occur when the City Manager accepts an Offer, or when the City Council accepts the Offer and enters into the Agreement, as allowed under the Flagstaff City Charter. The City reserves the right to clarify any contractual terms with the concurrence of Proposer, however, any substantial non-conformity in the Offer shall be deemed non-responsive and the Offer rejected. A contract approved by the City Council may only be changed by written amendment signed by duly authorized representatives of the City and the Proposer.

4. **EXCEPTION TO THE SOLICITATION:** Proposer shall identify and list all exceptions taken to all sections of this RFP Package and list these exceptions referencing the section (paragraph) where the exception exists, identifying the exceptions and the proposed wording for Proposer's exception. Proposer shall list these exceptions under the heading "Exception to the PROPOSAL Solicitation." Exceptions that surface elsewhere and that do not also appear under the heading "Exception to the Proposal Solicitation," shall be considered invalid and void and of no contractual significance. The City reserves the right to reject, render the proposal non-responsive, enter into negotiation on any of the Proposer exceptions, or accept them.

5. **INTERPRETATION - PAROL EVIDENCE:** The Agreement is intended by the parties as a final expression of their agreement. No course of prior dealings between the parties and no usage of the trade shall be relevant to supplement or explain any term used in the Agreement. Acceptance or acquiescence in a course of performance rendered under the Agreement shall not be relevant to determine the meaning of the contract even though the accepting or acquiescing party has knowledge of the nature of the performance and opportunity to object. Whenever a term defined

by the City Charter or applicable Arizona State Statute is used in the Agreement, that definition shall control.

6. **RIGHTS AND REMEDIES:** No provision in this document or in the RFP Packet shall be construed, expressly or by implication, as a waiver by either party of any existing or future right and/or remedy available by law in the event of any claim of default or breach of contract.

7. **PROTESTS:** Protests shall be resolved, in accordance with the following: A protest shall be in writing and shall be personally delivered or served upon the City Purchasing Director. A protest of a solicitation shall be received at the City Purchasing Department before the solicitation opening date. A protest of a proposed award or of an award shall be personally delivered or served upon the City Purchasing Director within ten (10) days after the protester knows or should have known the basis of the protest. A protest shall include:
   a. The name, address and telephone number of the protester;
   b. The signature of the protester or its representative;
   c. Identification of the solicitation or contract number;
   d. A detailed statement of the legal and factual grounds of the protest including copies of relevant documents; and
   e. The form of relief requested.

8. **ADVERTISING:** Proposer shall not advertise or publish information concerning the solicitation or the Agreement, without the prior written consent of the City.

9. **RIGHT TO INSPECT PLANT:** The City may, at reasonable times and at its expense, inspect the plant or place of business of a Proposer or Sub-proposer which is related to the performance of any contract as awarded or to be awarded.

10. **INSPECTION:** All materials, services or construction are subject to final inspection and acceptance by the City. Materials, services or construction failing to conform to the specifications of the contract shall be held at Proposer's risk and may be returned to Proposer. If so returned, all costs shall be the responsibility of Proposer.

11. **PURCHASE ORDERS:** The City shall issue a purchase order for the goods or services covered by the contract. All such purchase orders will reference the contract number, as well as the City Council approval date and Council Agenda item number.

12. **PACKING AND SHIPPING:** If applicable, Proposer shall be responsible for industry standard packing which conforms to requirements of carrier's tariff and ICC regulations. Containers shall be clearly marked as to lot number, destination, address and purchase order number. All shipments shall be F.O.B. Destination, City of Flagstaff, 211 West Aspen Avenue, Flagstaff, Arizona 86001, unless otherwise specified by the City. C.O.D. shipments will not be accepted.

13. **TITLE AND RISK OF LOSS:** The title and risk of loss of material or service shall not pass to the City until the City actually receives the material or service at the point of delivery, and the City has completed inspection and has accepted the material, unless otherwise provided within the contract.

14. **NO REPLACEMENT OF DEFECTIVE TENDER:** Every tender of materials, or services, must fully comply with all provisions of the contract. If a tender is made which does not fully conform, this shall constitute a breach and Proposer shall not have the right to substitute a conforming tender without prior approval from the City.

15. **DEFAULT IN ONE INSTALLMENT TO CONSTITUTE TOTAL BREACH:** Proposer shall deliver conforming materials, or services, in each installment or lot of the contract and may not substitute nonconforming materials, or services. Delivery of nonconforming materials, and/or services, or a default of any nature, at the option of the City, shall constitute a breach of the contract as a whole.

16. **SHIPMENT UNDER RESERVATION PROHIBITED:** Proposer is not authorized to ship materials under reservation and no tender of a bill of lading shall operate as a tender of the materials.

17. **LIENS:** All goods, services and other deliverables supplied to the City under the Agreement shall be free of all liens other than the security interest held by Proposer until payment in full is made by the City. Upon request of the City, Proposer shall provide a formal release of all liens.

18. **LICENSES:** Proposer shall maintain in current status all Federal, State, and local licenses and permits required for the operation of the business conducted by Proposer as applicable to the Agreement.

19. **COST OF PROPOSAL PREPARATION:** The City shall not reimburse the cost of developing, presenting or providing any response to this solicitation. Proposals submitted for consideration by the City should be prepared simply and economically, providing adequate information in a straightforward and concise manner.

20. **CONFIDENTIAL INFORMATION:**

A. If a Proposer believes a specific section of its proposal to be confidential, the Proposer is to mark the page(s) “confidential” and isolate the pages marked confidential in a specific and clearly labeled section of its proposal response. The Proposer is to include a written statement as to the basis for considering the marked pages confidential.

B. The information identified by the person as confidential shall not be disclosed until the City makes a written determination.

C. The City shall review the statement and information and shall determine in writing whether the information shall be treated as confidential.

D. If the City determines to disclose the information, the City shall inform the Proposer in writing of such determination.

E. After award of a contract, proposal responses shall be considered a matter of public record and subject to disclosure. Materials submitted by Proposers shall become the property of the City unless otherwise requested at the time of submission. Materials identified as confidential by the Proposer will be reviewed by the City Purchasing Office which shall make a determination as to whether the information is disclosable. Generally, information submitted in response to this RFP is considered a matter of public record and subject to disclosure pursuant to the Arizona Public Records Law.

21. **AUTHORIZED CHANGES:** The City reserves the right at any time to make changes in any one or more of the following: a) methods of shipment or packing; b) place of delivery; and c) quantities. If any change causes an increase or decrease in the cost of or the time required for performance, an equitable adjustment may be made in the price or delivery schedule, or both.

Any claim for adjustment shall be evidenced in writing and approved by the City Purchasing Director prior to the institution of the change.

**22. SAMPLES:** Upon request, Proposers may be required to furnish a sample of the goods and/or service to be provided. Submission of a sample by a Proposer shall constitute an express warranty that the whole of the goods and/or service shall conform to the sample submitted. All samples submitted by a Proposer shall become the property of the City for testing purposes and/or future comparison at no charge unless designated otherwise by the Proposer. Samples not destroyed by testing or which are not retained for future comparison shall be returned upon request at Proposer's expense.

**23. PRE-PROPOSAL CONFERENCE:** A prospective Proposers' conference may be held at the City's sole discretion. If scheduled, the date and time of this conference will be indicated on the cover page of this document.

The purpose of this conference shall be to clarify the contents of this RFP Package in order to prevent any misunderstanding of the City's position. Any doubt as to the requirements of this RFP Package or any apparent omission or discrepancy should be presented to the City at this conference. The City shall then determine the appropriate action necessary, if any, and issue a written amendment to the RFP. Oral statements or instructions shall not constitute an amendment to this RFP.

**24. DISCUSSIONS AND REVISIONS TO PROPOSAL:** Discussions may be conducted with responsible Proposers who submit proposals determined to be reasonably susceptible of being selected for award. Such discussions may facilitate the exchange of pertinent information to enable a more complete understanding of, and responsiveness to, the solicitation requirements. Should the City elect to call for 'best and final' offers, Proposers shall be accorded fair and equal treatment with respect to any opportunity for discussion and revision of proposals, and such revisions may be permitted after submissions and prior to award for the purpose of obtaining best and final offers. In conducting discussions, there shall be no disclosure of any information derived from proposals submitted by competing Proposers. The purposes of such discussions shall be to:

A. Determine in greater detail such Proposers' qualifications, and

B. Explore with the Proposers, the Scope of Services, the Proposers' proposed method of performance, and the relative utility of alternate methods of approach;

C. Determining whether the Proposers have the necessary personnel and facilities to perform within the required time;

D. Agreeing upon compensation which is fair and reasonable, taking into account the estimated value of the required services, and the scope, complexity and nature of such services.

**25. COOPERATIVE PURCHASING AGREEMENTS:** A contract resulting from this RFP may be extended for use by the members of the Flagstaff Alliance for the Second Century. An Intergovernmental Agreement (IGA) has been executed between the City, Coconino County Community College District, Northern Arizona University, Coconino County and Flagstaff Unified School District. The contract may also be extended to other municipalities and government agencies of the state. Any such usage by other municipalities and government agencies must be in accordance with the ordinance, charter and/or rules and regulations of the respective political entity. Any public agencies not identified within this RFP who wish to cooperatively use the contract are subject to the approval of Proposer.

The City is also a member of S.A.V.E. (Strategic Alliance for Volume Expenditures), which consists of numerous municipalities, counties, universities, colleges, schools and other Arizona State agencies. These cooperatives are achieved through Intergovernmental Agreements (IGAs) in accordance with provisions allowed by A.R.S. §11-952 and §41-2632. The IGAs permit purchases of material, equipment and services from Proposers at the prices, terms and conditions contained in contracts originated between any and all of these agencies and the Proposer(s) contract, as awarded.

Is your firm willing to offer the goods and services solicited under the terms and conditions of this solicitation to other members of the Flagstaff Alliance for the Second Century and S.A.V.E. under the same pricing, terms and conditions?

_____ Yes _____ No

**26. FINANCIAL STATUS:** All Proposers shall make available upon request a current audited financial statement, a current audited financial report, or a copy of a current federal income tax return. Failure or refusal to provide this information within five (5) business days after communication of the request by the City shall be sufficient grounds for the City to reject a proposal, and/or to declare a Proposer non-responsive or non-responsible.

If a Proposer is currently involved in an ongoing bankruptcy as a debtor, or in a reorganization, liquidation, or dissolution proceeding, or if a trustee or receiver has been appointed over all or a substantial portion of the property of the Proposer under federal bankruptcy law or any state insolvency law, the Proposer must provide the City with that information as part of its proposal. The City may consider that information during evaluation of the proposal.

By submitting a proposal in response to this solicitation, Proposer agrees that, if, during the term of any contract it has with the City, it becomes involved as a debtor in a bankruptcy proceeding, or becomes involved in a reorganization, dissolution or liquidation proceeding, or if a trustee or receiver is appointed over all or a substantial portion of the property of Proposer under federal bankruptcy law or any state insolvency law, Proposer shall immediately provide the City with a written notice to that effect, and shall provide the City with any relevant information it requests to determine whether the Proposer will meet its obligations to the City.

**27. GOVERNING LAW and JURISDICTION:** This solicitation shall be governed by and construed in accordance with the laws of the State of Arizona.

**28. SUBSEQUENT PURCHASES:** The City, with the consent of the successful Proposer(s), reserves the right to purchase additional items as listed in this proposal, if Proposer is willing to offer the same terms and conditions as submitted in this proposal, for a period of twelve (12) months from the date of approval.

**29. POINT OF CONTACT:** The proposal must indicate the name of one individual who the City is to contact with any questions or clarifications in regards to the proposal.

**30. ON-SITE INVESTIGATION:** Proposers are strongly encouraged to view all of the City's facilities that may be referenced in the Scope of Work prior to submitting their proposal. The Proposer shall be responsible for examining the facility sites and comparing it with the descriptions and specifications, to have carefully examined all of the RFP Package, including the sample contract and to have satisfied themselves as to the conditions under which the work is to be performed before submitting a proposal and entering into the contract.

No allowance shall subsequently be made on behalf of Proposer on account of an error on its part or its negligence or failure to become acquainted with the conditions of the site, or surrounding areas.

**31. CONTRACT ADMINISTRATION:** To help insure contract compliance, a Contract Administration Process will be an integral part of the contract. This Contract Administration Process is an audit and feedback system and will be in addition to any of the other policies and procedures contained herein. The Contract Administration Process is a total quality management tool that empowers the users to monitor and assure contract compliance. The Proposer should know during the proposal process that the successful Proposer will be closely monitored for contract compliance. No additional cost is anticipated to be incurred by the successful Proposer by the presence of the Contract Administration Process, as long as contract compliance is maintained.

All changes or amendments to the contract are to be in writing, authorized by the Purchasing Director, approved by the City Council, and signed by authorized representatives of the parties.

**32. CONTRACT TYPE:** Firm Fixed Fee. Initial contract term shall be for five (5) years.

**33. CONTRACT RENEWAL:** The City reserves the right to unilaterally extend the period of the contract for ninety (90) days beyond the stated expiration date. In addition, by mutual written consent, the contract may be renewed for supplemental periods of up to **one (1)** additional five (5) year term.

**34. OFFER ACCEPTANCE PERIOD**: In order to allow for an adequate evaluation, the City requires an offer in response to this solicitation to be valid and irrevocable for ninety (90) days after the opening time and date.

**35. CONTACT WITH CITY EMPLOYEES AND CONTRACTORS**

All persons and/or firms that are interested in this project (including the firm's employees, representatives, agents, lobbyists, attorneys, and sub-contractors) will refrain, under penalty of disqualification, from direct or indirect contact for the purpose of influencing the evaluation/selection or creating bias in the evaluation/selection process with any person who may play a part in the evaluation/selection process. This includes but is not limited to the evaluation panel, City Council Members, City Manager, Assistant City Manager(s), Deputy City Manager(s), Department Directors or other staff. This policy is intended to create a level playing field for all potential firms, assure that contract decisions are made in public, and to protect the integrity of the selection process. All contact on this selection process should be addressed to the authorized representative identified on Page One of this document.

# PROJECT DESCRIPTION/BACKGROUND

The City of Flagstaff is seeking professional consulting services to prepare an economic model, a complete analysis, and resulting recommendations for its rates and charges for the following utilities:

- Water
- Wastewater
- Reclaimed Water,
- Buy-in Capacity Fees
- Stormwater

The goal of the analysis is to ensure the utility has sufficient revenues to cover the operation, maintenance and replacement costs identified below and to meet the City's debt coverage requirements and capital program guidelines. The economic model and analysis should evaluate the current rates, and provide recommendations for fee structures that will meet cost and revenue requirements for a base fiscal year and ten subsequent years.

Water:

The City of Flagstaff has approximately 19,500 water service connections and maintains 433 miles of potable water main on twelve major reservoirs operating on three distinct pressure zones. The Utilities Water Production Section operates an eight million gallons per day (MGD) surface water processing plant obtaining raw water from Upper Lake Mary. The Inner Basin provides seasonal springs and a shallow aquifer system that are capable of up to two (2) MGD of production during the summer. Twenty-six (26) deep wells in three (3) major well fields may contribute up to an additional twelve (12) MGD of potable water. The City has purchased Red Gap Ranch located approximately 35 miles east of the City for potential groundwater development. Other water farm tracts are under consideration. There is also a possibility of a future Colorado River surface water allotment and a pipeline from Lake Powell. A comprehensive report to the City's Water Commission that is updated yearly, provides a detailed description of the infrastructure and an operation plan for the Utilities Division.

Wastewater:

The City operates two wastewater treatment plants that serve a combined population of approximately 67,000 residents. The Wildcat Hill Wastewater Treatment Plant (WWTP) is a six (6) MGD facility and the Rio De Flag Water Reclamation Plant can process up to a four (4) MGD of wastewater flow. The City maintains 274 miles of gravity flow sanitary sewer. The City has projected estimates for additional wastewater treatment capacity needs and its timing.

Reclaimed Water:

Additionally the Utilities Division maintains about 25 miles of reclaimed water mains connected to a two (2) million gallon storage tank. The City Parks and Recreation Division, Northern Arizona University, SCA Tissue, a recycled paper products manufacturing facility, three (3) golf courses along with construction related uses are currently the largest users of reclaimed water in the summer time. The Arizona Snowbowl is the largest user during the wintertime. Reclaimed water is available off of the existing mains down to the residential level for permitted non-potable uses. During the last 20 years the attractive pricing of the reclaimed water has made the demand for this commodity greater than current supply during the summer months of the year. The City has estimates for capital improvements to the reclaimed system.

The Utilities Division has completed a major upgrade to the Wildcat Hill WWTP in 2010 with the intent of providing Class A+ quality reclaimed water. However, this plant is currently under a

Consent Order by the Arizona Department of Environmental Quality and requires numerous additional capital projects to ensure the facility consistently makes Class A+ quality reclaimed water.

Buy-in Capacity Fees:

Currently this City has Capacity Fees for the water and wastewater systems. Water and Waste Water capacity fees must be developed in accordance with applicable Arizona regulations in particular Senate Bill 1525.

Stormwater:
The City of Flagstaff presently owns and operates stormwater management infrastructure systems and facilities which have been developed, installed and acquired through various mechanisms over many years. The future usefulness and value of the existing stormwater systems and facilities and of future additions and improvements thereto, rests on the ability of the City to effectively manage, construct, protect, operate, maintain, control, regulate, use and enhance the stormwater systems and facilities in the City. In order to do so, the City must have adequate and stable funding for its stormwater management program operating and capital improvement needs.

The City has a current water and wastewater rate model that is 3 years old. This is an Excel spread sheet model which is the preferred application for the rate model.

The City has an established water conservation program based on an inverted block rate structure that increases the cost of single-family residential water proportionally as monthly water consumption increases. Single-family Residential sewer charges are based on a winter quarter average taken when outside water use is not a factor. The success of the conservation program has reduced projected potable water consumption averages and associated revenue due to less potable water use billed and a subsequent decrease of flow to the City sewers. Other customer classes utilize a flat rate, regardless of consumption.

# SCOPE OF WORK

## BASIC SERVICES

### TASK 1 – STUDY ORIENTATION

1.1 Data Request
Consultant shall provide a list of financial and statistical information needed to complete rate study analysis. Consultant shall provide frequent updates of data request list showing items that have been obtained and items still outstanding. Consultant shall revise list as necessary to reflect additional items.

1.2 Study Orientation Workshop
Consultant shall facilitate Study Orientation Workshop with City representatives to:

- Clarify roles, confirm study objectives, communication procedures, study schedule, and due dates for deliverables,
- discuss financial and operational information received prior to meeting,

- identify pricing objectives for utility rates including water, wastewater, reclaimed water, stormwater and Buy-in capacity fees
- identify additional information needed to complete study, and
- identify assumptions and relevant City policies as well as applicable statutes.

Consultant shall prepare and submit meeting summary within five (5) days of Study Orientation Workshop via e-mail in PDF format.

1.3 Rate Survey
Consultant shall obtain list from City representative of up to 10 cities to be included in survey of utility rates.

1.4 Project Progress and Schedule
Consultant shall monitor and report progress of project through monthly reports for an assumed 9-month period of service. The monthly reports shall include a written report of work accomplished during the month and shall accompany Consultant's monthly invoices.

1.5 General Management and Coordination
Consultant shall provide day-to-day general project coordination and consultation with City representatives.

**TASK 2 – FINANCIAL PLAN**

2.1 Study Period
Consultant shall identify 10-year study period for financial plan forecast.

2.2 Capital Improvement Program
Consultant shall review utility capital improvement programs for completeness. Consultant shall assist City representatives in allocating capital projects to growth and non-growth categories.

2.3 Customer Units of Service
Consultant shall evaluate customer growth and usage characteristics for utilities by customer class and meter size. Consultant shall assist City representatives in developing water bill frequency analysis to determine the usage characteristics for each customer class.

2.4 Revenue Under Existing Rates
Consultant shall calculate revenue under current rates for study period for customer class and meter size basis using bill frequency information provided by City.

2.5 Miscellaneous Revenue
Consultant shall project revenue from miscellaneous utility sources for study period including Buy-in capacity fees, tap fees, hydrant rental, investment income and other sources as well as plan review fees, rough and final grading inspection fees and other ancillary charges.

2.6 Operation and Maintenance Expense
Consultant shall review historical cost trends to project expenses and to recognize changes in certain costs consistent with changes in future utility operations.

2.7 Debt Service]
Consultant shall conduct analysis to ensure compliance with covenants and financial requirements associated with existing or proposed bond obligations and other debt instruments.

2.8 Reserves

Consultant shall review City reserve requirements and recommend changes, if appropriate, to comply with general industry standards.

2.9 Cash Flow Analysis

Consultant shall develop up to four cash flow scenarios for study period incorporating revenue requirements developed and showing various capital funding options, debt coverage options, reserves options and other parameters that may affect projected rate increases.

2.10 Financial Plan Technical Memorandum

Consultant shall prepare and submit meeting summary within five (5) days of meeting via e-mail in PDF format.

**TASK 3 – COST OF SERVICE ANALYSIS**

3.1 Test Year

Consultant shall select test year or years for cost of service analysis. The consultant may choose to use the existing cost of service analysis prepared in 2010.

3.2 Customer Class Characteristics

Consultant shall use billing data to develop customer characteristics and recommend additional customer classes, if appropriate. The consultant has the option of using the existing customer cost allocation and customer classes established in 2010, or of preparing a new customer cost allocation for existing customer classifications.

3.3 Water Cost Analysis

Consultant shall perform water cost of service analysis in accordance with American Water Works Association accepted methods.

3.4 Wastewater Cost Analysis

Consultant shall perform wastewater cost of service analysis in accordance with Water Environment Federation accepted methods.

3.5 Stormwater Cost Analysis

Consultant shall perform stormwater cost of service analysis in accordance with industry accepted methods. The City currently has a Stormwater Utility Fee based on an Impervious Area Rate Methodology. An Equivalent Rate Unit (ERU) is 1500 square feet of impervious area within each parcel boundary. Each whole ERU, or increment thereof, is billed at a rate of $1.30 per ERU.

3.6 Summary

Consultant shall compare test year class cost of service with class revenue under existing rates.

**TASK 4 – RATE DESIGN**

4.1 Rate Design

Consultant shall design utility rates to produce adequate revenue, equitably recover class cost of service, and comply with City policies. If appropriate, rates will be designed using existing rate structure and up to two alternative structures. Consultant shall review and analyze water reclamation benefits and cost and develop rate for reuse water.

4.3 Rate Design Workshop
Consultant shall facilitate Rate Design Workshop with City representatives to discuss rate design preferences and to select alternative rate structures and rate levels for presentation to City management staff and Council.

4.4 Rate Design Technical Memorandum
Consultant shall prepare and submit meeting summary within five (5) days of meeting via e-mail in PDF format.

**TASK 5 – STUDY REPORTS**

5.1 Draft Report
Consultant shall prepare up to three versions of draft report to document study assumptions, procedures, finding and recommendations. Twenty hard copies and one electronic copy of the draft report shall be provided to the City.

5.2 Draft Report Workshop
Consultant shall facilitate Draft Report Workshop with City representative to discuss City Comments on draft report.

5.3 Final Report
Consultant shall prepare final report incorporating comments received from City representatives and deliver 20 hard copies and two CD's with report files in PDF format to the City.

**TASK 6 – PRESENTATION**

6.1 Preparation
Consultant shall prepare presentation for City Council and provide to City representatives for review prior to meeting. Presentations will include three (3) Water Commission Meetings and three (3) City Council meetings.

6.2 Presentation
Consultant shall be prepared to present to the City Council the final report with recommendations at the request of the representatives of City.

**TASK 7 – MODEL**

7.1 Model Development
Consultant shall work with City representatives throughout study on design and operation of Microsoft Excel model. Consultant shall deliver a Microsoft Excel financial model to the City. The City will retain this model which enables the City to calculate future fees and charges

7.2 Training Session
Consultant shall conduct one-day session to train City representatives in model design and layout; adjustment of key variables that support efficient "what-if" scenario development features of model; and update with new budget, CIP, and revenue information for future use.

7.3 User Manual

Consultant shall deliver Microsoft Excel financial model and user manual to City. Five (5) hard copies of user manual and one (1) CD with electronic files in Microsoft Word and PDF format shall be provided to City.

**ADDITIONAL SERVICES**

The City may request services that are supplemental to those included in the Basic Scope of Services. These services shall be upon written authorization from City and may include, but not be limited to, the following tasks:

- Development of up to three additional alternative financial plans.
- Development of up to three additional alternative rate structures.
- Development of comparison rates of 10 cities selected in Task 1.3 with current and proposed City rates with comparison of monthly bills for median residential user
- Development of an alternative for annual rate model maintenance

Please provide pricing for the above additional services as alternate pricing packages.

# PROPOSAL FORMAT/SUBMITTAL

**FORMAT AND CONTENT:** To aid in the evaluation, all proposals should follow the same general format. The proposals are to be submitted in binders and have sections tabbed with proposal information as outlined in the categories/criteria below.

The Evaluation Committee will evaluate responses to this RFP based on the information provided in each of the proposer's proposal responses and interviews, if conducted, as necessary. To allow for a standard basis of evaluation, all proposal responses shall follow the format outlined below. Proposers should use recycled paper (minimum 50% post consumer waste) and double-sided printing for the proposal submitted. An original and nine (9) copies are to be submitted. Proposal responses should be organized with sections/dividers as follows:

Proposer shall provide packaging/packing materials that meet at least one of, and preferable all of the following criteria:

- Made from 100% post-consumer recycled materials
- Non-toxic
- Bio-degradable
- Reusable
- Recyclable

**Cover:**
The cover should contain the following relevant data as a minimum:
- Statement indicating response to: Utility Rate Capacity Study Consulting Services
- RFP No. 2014-38
- Submittal date
- Company name (and logo if desired)
- Other information/graphics as desired

**Title Page:**
Proposers shall include their company name, address, e-mail/website address(es), phone and fax numbers and name(s) of principals.

## A. Organization

1. Describe your organization, date founded, ownership, organizational chart and other business affiliations.

## B. Experience and Qualifications (35%)

1. Describe the firm composition and provide a list of the following information:
    a) Expertise that each member in your firm will provide
    b) Number of employees (and their roles) in your firm on the proposed team for the project

2. Provide a list of up to five (5) similar projects and general scope of each project that each employee on your project team has completed within the last three (3) years. The projects must demonstrate the required expertise needed for this project. Include the work/services provided on the projects and approximate Proposer fee on each project.

## C. Presented Approach and Creativity (25%)

1. Proposers to describe the approach to meeting the project goals

2. Proposers to describe the approach to problem solving

3. Proposers to describe the approach in developing creative solutions that adhere to public policy, regulatory and/or statutory constraints

4. Describe approach to developing alternatives regarding cost constraints, operational constraints, staff constraints and public constraints

5. Describe the approach to resolving issues with the project team, the clients, public and City Council

6. Describe the approach to developing growth trends used for future planning needs

7. Describe the approach for participation in the Project Delivery System

## D. Ability to Meet Schedule Commitments (20%)

1. Provide a typical schedule for this project

2. Provide two (2) examples of similar projects (with client references) documenting the firms' ability to maintain a set schedule

3. Provide an illustration of the firms' capabilities to maintain the appropriate staffing levels required for this project, include any available contingency plans

4. Provide an explanation of how the performance of the project will be measured against an agreed upon schedule

## E. Project Delivery System (10%)

1. Proposers to illustrate their understanding of the project delivery system. Identify major elements of the work plan for this project and describe and discuss how your team will:

    a) Develop a work plan for this project
    b) Identify major elements of the work plan for this project
    c) Fashion your work plan to address contingencies
    d) Identify critical milestone activities for this project
    e) Provide a Quality Assurance/Quality Control process
    f) Manage challenges such as changes in the project scope or loss in key staffing

## F. Price/Fee (10%)

1. Describe your fee or pricing structure to provide all of the scope of work and any alternates as outlined in this RFP

# EVALUATION CRITERIA

Proposals will be evaluated based on the Proposer's ability to meet the performance requirements and Scope of Work/Specific Terms of this RFP Package. This section provides a description of the evaluation criteria that will be used to evaluate the Proposals. To be deemed responsive, it is important for the Proposer to provide appropriate detail to demonstrate satisfaction of each criterion and compliance with the performance provisions outlined in this RFP Package.

The following evaluation criteria will be used by the City of Flagstaff's evaluation committee for the selection of a Proposer to provide Utility Rate Capacity Study Consulting Services for the City's Utility Division. The evaluation committee will review the initial proposal responses and score them according to the criteria listed below. Depending on the total number of proposal responses to this RFP, the committee may "short list" the proposers receiving the highest scores and conduct formal discussions/presentations to make a final evaluation. After final evaluation of proposal responses, the City may narrow the total number of responses down to approximately three (3) and may request "Best and Final" offers.

The following evaluation criteria and points schedule will be used to determine the award of the contract(s):

| EVALUATION CRITERIA | RELATIVE IMPORTANCE PERCENTAGE |
|---|---|
| 1. Experience and Qualifications | 35 |
| 2. Presented Approach & Creativity | 25 |
| 3. Ability to Meet Schedule | 20 |
| 4. Project Delivery System | 10 |
| 5. Price/Fee | 10 |
| **TOTAL PERCENTAGE** | **100** |

The City reserves the right to reject any and all proposals, or any part thereof; to accept any proposal or any part thereof; or to waive any informality when it is deemed to be in the City's best interest.

# PROPOSER'S REFERENCES

**1. REFERENCES.** Proposers shall submit references for municipal projects that are comparable in size, complexity, and scope of work sought by this RFP.

- The references should also demonstrate the Proposer's experience with providing Utility Rate Capacity Study Consulting Services being proposed. The histories of such projects that they have completed, firm resumes and resumes of key personnel should also be included, as well as other information believed to demonstrate the indicated types of experience.
- All references should include the name, title, telephone number of both the current owner of the project and the owner of the project at time of work effort. Specific reasons for using the reference must also be provided.

| | |
|---|---|
| Firm/Government Agency Name: | |
| Contact Person: | Phone: |
| Title: | Fax: |
| Address: | E-Mail Address: |
| | Reason for Selecting as Reference: |
| Project Size, Complexity, Scope and Duration: | |
| Firm/Government Agency Name: | |
| Contact Person: | Phone: |
| Title: | Fax: |
| Address: | E-Mail Address: |
| | Reason for Selecting as Reference: |
| Project Size, Complexity, Scope and Duration: | |
| Firm/Government Agency Name: | |
| Contact Person: | Phone: |
| Title: | Fax: |
| Address: | E-Mail Address: |
| | Reason for Selecting as Reference: |

| | |
|---|---|
| Project Size, Complexity, Scope and Duration: | |
| Firm/Government Agency Name: | |
| Contact Person: | Phone: |
| Title: | Fax: |
| Address: | E-Mail Address: |
| | Reason for Selecting as Reference: |
| Project Size, Complexity, Scope and Duration: | |
| Firm/Government Agency Name: | |
| Contact Person: | Phone: |
| Title: | Fax: |
| Address: | E-Mail Address: |
| | Reason for Selecting as Reference: |
| Project Size, Complexity, Scope and Duration: | |

# PROPOSER QUESTIONNAIRE

Company Legal/Corporate Name: _____

Doing Business As (if different than above): _____

Address: _____

City: _____ State: _____ Zip: _____-_____

Phone: _____ Fax: _____

E-Mail Address: _____ Website: _____

Taxpayer Identification Number: _____

Remit to Address (if different than above):

Address: _____

City: _____ State: _____ Zip: _____-_____

**Contact for Questions about this proposal:**

Name: _____ Fax: _____

Phone: _____ E-Mail Address: _____

Sales/Use Tax Information (check one):

____ Proposer is located outside Arizona (The City will pay use tax directly to the AZ Dept of Revenue)

____ Proposer is located in Arizona (The Offeror should invoice the applicable sales tax and remit to the appropriate taxing authorities)
State Sales Tax Number: _____
City Sales Tax Number: _____ City of: _____, AZ

____ Certified Small Business Certifying Agency: _____

____ Certified Minority, Woman or Disadvantaged Business Enterprise Certifying Agency: _____

Credit References: Provide the name and telephone number of at least three organizations that your company deals with on an on-going basis.

A. Company Name_____

Contact & Phone Number_____

B. Company Name_____

Contact & Phone Number_____

C. Company Name_____

Contact & Phone Number_____

Insurance - Name of insurance agent that will provide the specified coverages.

_____

List any other information that may be helpful in determining your qualifications including sub-contracts to be utilized, if any.

_____

_____

_____

# EXCEPTIONS, CONFIDENTIAL AND ADDITIONAL MATERIALS

Proposers shall indicate any and all exceptions taken to the provisions or specifications in this solicitation document.

**Exceptions (mark one):**

_____ No exceptions

_____ Exceptions taken (Describe) Attach additional pages if needed)

**Confidential/Proprietary Submittals (mark one):**

_____ No confidential/proprietary materials have been included with this offer

_____ Confidential/Proprietary materials included. Proposers should identify below any portion of their offer deemed confidential or proprietary (see Standard Terms and Conditions, section **titled Confidential Information**). Identification of such materials in this section does not guarantee that disclosure will be prevented but that the item will be subject to review by the Proposer and the City prior to any public disclosure. Requests to deem the entire offer as confidential will not be considered.

**Additional Materials submitted (mark one):**

_____ No additional materials have been included with this offer

_____ Additional Materials attached (Describe. Attach additional pages if needed)

# NON-COLLUSION AFFIDAVIT

State of_____ )
) ss.
County of_____ )

_____, affiant,

states that I am the_____
(Title)

of_____
(Contractor/Proposer)
and I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and officers. I am the person responsible in my firm for the price(s) and the amount of this bid.

I state that:

1. The price(s) and amount of this bid has been arrived at independently and without consultation, communication or agreement with any other contractor, bidder or potential bidder.
2. Neither the price(s) nor the amount of this bid, and neither the approximate prices(s) nor approximate amount of this bid, have been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before bid opening.
3. No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, or to submit a bid higher than this bid, or to submit any intentionally high or noncompetitive bid or other form of complementary bid.
4. The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive bid.
5. _____, its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last four years been convicted or found liable for any act prohibited by state or federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract.

_____

_____
(Title)

Subscribed and sworn to before me

this _____ day of _____, 2013

_____
Signature of Notary Public

# APPENDIX A
# DETERMINATION OF RESPONSIBILITY

**DETERMINATION OF RESPONSIBILITY OF PROPOSERS, FLAGSTAFF CITY CODE SECTION NUMBER 1-20-001-0004**

A. For purposes of administering the provisions of Sections 2, 9, and 10 of Article VIII of the Flagstaff City Charter with respect to an Enumerated Contract, as hereinafter defined, and such other contracts as the City shall deem appropriate in accordance with the provisions of this Section 0004, no Proposer shall be determined to be "responsible" if that Person is a Habitual Violator, as defined herein.

B. For purposes of this Section 0004, the masculine shall include the feminine and/or neuter and the singular the plural, and vice-versa, as sense shall require, and the following capitalized terms shall have the meaning set forth in this Subsection B, as follows:

1. "Person" means any individual, corporation, partnership, association, unit of government, or legal entity, however organized.

2. "Violation" means any one of the following actions or an equivalent action by any regulatory agency, court, or other competent authority as a result of or in connection with a Covered Matter:

a. Final administrative order imposing monetary penalties, or otherwise requiring payments, in excess of $100,000;

b. Final permit revocation or suspension;

c. Fine or civil judgment imposing monetary penalties, or otherwise requiring payments, in excess of $100,000;

d. Judgment of conviction of a criminal offense by any court of competent jurisdiction, whether entered upon a verdict or a plea, including a plea of nolo contendere or no contest;

e. Finding of contempt of any court order enforcing the provisions of any federal or state law pertaining to a Covered Matter;

f. Settlement agreement or consent order imposing monetary penalties, or otherwise requiring payments, in excess of $100,000; and

g. Debarment or equivalent exclusionary action by any public agency or instrumentality.

3. "Covered Matter" means any of the following:

a. Any offense indicating a lack of business integrity or honesty which affects the present responsibility of a Proposer, including but not limited to:

(I) Fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public or private agreement;

(ii) Bribery, embezzlement, false claims, false statements, falsification or destruction of records, forgery, obstruction of justice, receiving stolen property, or theft; or

(iii) Unlawful price fixing between competitors, allocation of customers between competitors, Proposal rigging, or any other violation of any federal or state antitrust law that relates to the submission of Proposals or proposals.

b. Violation of the terms of a public agreement so serious as to affect the present responsibility of a Proposer, including but not limited to:
(i) a willful or material failure to perform under one or more public agreements; or

(ii) a willful or material violation of a statutory or regulatory provision or requirement applicable to a public agreement.

c. Failure to pay a debt (including disallowed costs and overpayments) owed to any government agency or instrumentality, provided that the debt is uncontested by the debtor or, if contested, provided that the debtor's legal and administrative remedies have been exhausted.

d. Violation of any law or regulation pertaining to the protection of public health or the environment.

4. "Parent" means any Person who owns or controls any other corporation, partnership, association, or legal entity, however organized.

5. "Subsidiary" means any corporation, partnership, association, or legal entity, however organized, owned or controlled by another Person.

6. "Affiliate": Persons are Affiliates of one another if, directly or indirectly, one owns, controls, or has the power to control the other, or a third Person owns, controls, or has the power to control both.

7. "Control" means the power to exercise, directly or indirectly, a controlling influence over the management, policies, or activities of a Person, whether through the ownership of stock or securities, through one or more intermediary Persons, or otherwise. For purposes of this Paragraph B.7, a Person who owns or has the power to vote, directly or indirectly, more than fifty percent (50%) of the outstanding voting securities of another Person, or more than fifty percent (50%) of value of the other Person. Such presumption may be rebutted by clear and convincing evidence. Other indicia of control shall include, but be not limited to: interlocking management or ownership; identity of interests among family members; shared facilities and equipment; common use of employees; or the power to appoint or actual appointment of directors or managers. For purposes of this Paragraph B.7, a person shall be treated as owning all stock and securities owned by: his siblings, spouse, and lineal descendants and ancestors; any trust of which such person or a member of such person's family is the grantor; and any corporation or other business entity in which such person or member of such person’s family owns more than fifty percent (50%) of the value or voting power of such entity.

8. "Habitual Violator" means any Proposer who has incurred, or any of whose Parent, Subsidiary, or other Affiliates have incurred, in the aggregate, more than two Violations within five (5) years preceding the Proposal opening date.

9. "Enumerated Contract" shall mean any contract by which the City purchases services to be performed, which by its terms cannot be performed in less than one (1) year and which requires the payment of a stated sum of more than One Hundred Thousand Dollars ($100,000), but shall not include contracts for the provision of professional services (such as legal, accounting, architectural or engineering) or for the construction, improvement or repair of City buildings or other public improvements.

C. For purposes of this Section 0004, any administrative action or order, judgment or criminal conviction that has been ruled on appeal in favor of the Proposer by a final decision of a competent authority will not be considered to be a Violation. If the Proposer has an appeal pending, the outcome of which will affect the determination of whether the Proposer is a responsible Proposer, the City shall not determine the Proposer to be a responsible Proposer until a final decision on the appeal is rendered.

D. Along with its Proposal or proposal documents, each Person Proposalding or proposing for an Enumerated Contract, or for any other contract for which the City shall choose to apply the provisions of this Section 0004 by due notice in the Proposal solicitation or request for proposals for such contract, shall provide such information as shall be necessary and appropriate for the evaluation of a Proposer under the provisions of this Section 0004, substantially in the form attached hereto as an Exhibit.

E. If information provided by the Proposer or otherwise available to the City shows that the Proposer, or its Parent, Subsidiary, or other Affiliates, have incurred in the aggregate more than two Violations within five (5) years preceding the Proposal opening date, the City shall notify the Proposer that the Proposer appears to be a Habitual Violator within the meaning of this Section 0004. Upon receipt of the notification, the Proposer shall have ten (10) days to produce clear and convincing evidence to the City that the Proposer is not a Habitual Violator within the meaning of this Section. If the City finds that the evidence, if any, produced by the Proposer is not clear and convincing evidence that the Proposer is not a Habitual Violator, the City shall determine the Proposer to be a Habitual Violator. If the City finds that the evidence produced by the Proposer is clear and convincing evidence that the Proposer is not a Habitual Violator, the City shall determine that the Proposer is not a Habitual Violator. Notwithstanding anything to the contrary contained herein, the City may, but shall not be required to, deem a Proposer not to be a Habitual Violator, or may waive, in whole or in part, the requirements of this Section 0004, if the City, in its sole discretion, shall determine that:

1. There is no other Proposer reasonably capable of performing the subject contract;
2. An emergency exists such that the expeditious award of the contract is essential to the public health, safety or welfare; or
3. A change of ownership, management or control of the Proposer demonstrates, by clear and convincing evidence, as determined by a vote of five (5) at any Council meeting duly held, that the history of the Proposer is not indicative of its current business practices.

F. Any Proposer who intentionally provides false information, or intentionally fails to provide complete information, to the City in accordance with the requirements of Subsection D hereof shall be determined to be not a responsible Proposer within the meaning of Sections 2, 9, and 10 of Article VIII of the Flagstaff City Charter.

G. For purposes of administering the provisions of Sections 2, 9, and 10 of Article VIII of the Flagstaff City Charter, if a Proposer is not a Habitual Violator, the City may consider any other information available to the City in determining whether a Proposer is responsible. The City's

Purchasing Director or his designee may establish further specific criteria of responsibility with respect to particular solicitations or requests for proposals, which criteria shall be set forth in such solicitation or request for proposals. Further, the City's Purchasing Director or his designee may choose to apply some or all of the provisions of this Section 0004 to any contract other than an Enumerated Contract if the nature of such contract or other circumstances indicate that the Proposer's responsibility is or may be material in the performance or administration of such contract, provided that the application of such provisions shall be noted in the Proposal solicitation or request for proposals for such contract.

H. Any determination that a Proposer is not responsible, under Section 0004 shall be made in writing and shall set forth the grounds for such determination. A copy of such determination shall be promptly sent to such Proposer.

I. Nothing in this Section 0004 shall be construed to limit the right of the City to find any Proposer or proposer not responsible for purposes of Sections 2, 9, and 10 of Article VIII of the Flagstaff City Charter for any sufficient reason not enumerated herein, with respect to any City contract, whether or not the requirements of this Section 0004 are applicable to such contract.

J. If, during the course of administration or performance of any contract to which the requirements of this Section 0004 are applicable (whether by the terms hereof or by action of the City's Purchasing Director, as set forth in Subsection G hereof), either:

1. The City shall discover that the Proposer made a material omission or false statement in the course of providing the information required by Subsection D; or

2. The Proposer commits a Violation as defined above, which, in conjunction with other Violations committed by the Proposer or any Affiliate, would make it a Habitual Violator;

Then the City may terminate the contract immediately, without penalty or further obligation (other than those as may already have accrued under the terms of the contract), except as may be otherwise expressly provided in such contract.

# APPENDIX B
# PROPOSER DISCLOSURE FORM

### Information required to be solicited pursuant to City Code Section 1-20-001-0004.D

In accordance with City Code Section 1-20-001-0004, all Proposers are required to complete and sign the following checklist. For any item checked YES, you must provide as complete an explanation as possible on one or more attached sheets, including dates, company name(s), enforcing authority, court, agency, etc. Answering YES to one or more questions does not necessarily mean that you will be disqualified from this Proposal. HOWEVER, **FAILURE TO PROVIDE TRUE AND COMPLETE INFORMATION MAY RESULT IN DISQUALIFICATION FROM THIS PROPOSAL AND OTHER CONTRACTS FOR THE CITY OF FLAGSTAFF.** A copy of City Code Section 1-20-001-0004 may be obtained from the City of Flagstaff Purchasing Department.

Has your company or any affiliate* of your company, in the past 5 years, (i) had a permit revoked or suspended, (ii) been required to pay a fine, judgment or settlement of more than $100,000, (iii) been convicted of a criminal offense (including a plea of guilty or *nolo contendere*), (iv) been found in contempt of court, or (v) been debarred, disqualified or suspended from submitting proposals on public contracts, as a result of or in connection with any of the following:

1. Any offense indicating a lack of business integrity or honesty, including fraud, bribery, embezzlement, false claims, false statements, falsification or destruction of records, forgery, obstruction of justice, receiving stolen property, theft, or price fixing, Proposal rigging, restraint of trade or other antitrust law violation?
   YES_____ NO_____
2. Violation of the terms of any public contract? YES_____ NO_____
3. Failure to pay any uncontested debt to any government agency? YES_____ NO_____
4. Violation of any law or regulation pertaining to the protection of public health or the environment? YES_____ NO_____

*An “affiliate” of your company means any person, company or other entity that, either directly or indirectly (for example, through stock ownership by family members), controls, is controlled by, or is under common control with, your company.

**I hereby verify that the foregoing information, and any explanation attached are to the best of my knowledge, true and complete.**

| _____ | _____ | _____ |
|---|---|---|
| *Signature* | *Title* | *Date* |

# *OFFER*

**TO THE CITY OF FLAGSTAFF:**

The undersigned hereby offers and agrees to furnish the material, service, or construction in compliance with the RFP Package. Signature also certifies understanding and compliance with "Certification" as defined in Article 1 of the "Standard Terms and Conditions" of this Agreement.

For clarification of this offer, contact:

Name:_____ Phone:_____ Fax:_____

Company Name:_____

Address:_____

City, State, Zip:_____

_____ _____
Signature of Person Authorized to Sign Offer Title

_____ _____
Printed Name Date

# ATTACHMENT A

## DRAFT AGREEMENT FOR UTILITY RATE CAPACITY STUDY CONSULTING SERVICES

**CITY OF FLAGSTAFF**
**and**

_____

This Agreement for a City of Flagstaff Utility Rate Capacity Study Consulting Services ("Agreement") is made by and between the City of Flagstaff ("City"), a municipal corporation with offices at 211 W. Aspen Avenue, Flagstaff, Coconino County, Arizona, and _____, with an office at _____("Provider"), effective as of the date written below.

## RECITALS

A. The City desires to enter into this Agreement for Utility Rate Capacity Study Consulting Services; and

B. Provider has available and offers to provide the personnel necessary to organize and provide said services in accordance with the Scope of Work, attached to this Agreement as Exhibit A;

For the reasons recited above, and in consideration of the mutual covenants contained in this Agreement, the City and Provider agree as follows:

### 1. SERVICES TO BE PERFORMED BY PROVIDER

Provider agrees to provide the services, as set forth in detail in Exhibit "A" attached hereto and hereby incorporated as part of this Agreement and adopted by reference.

### 2. COMPENSATION OF PROVIDER

The City agrees to make payment, in the amount of $_____ to Provider to render the services set forth in Exhibit "B".

### 3. RIGHTS AND OBLIGATIONS OF PROVIDER

3.1 Independent Contractor. The parties agree that Provider performs specialized services and that Provider enters into this Agreement with the City as an independent contractor. Nothing in this Agreement shall be construed to constitute Provider or any of Provider's agents or employees as an agent, employee or representative of the City. As an independent contractor, Provider is solely responsible for all labor and expenses in connection with this Agreement and for any and all damages arising out of Provider's performance under this Agreement. Provider is not obligated to accept all requests for services, depending on circumstances with other work being performed for other clients.

3.2 Provider's Control of Work. All services to be provided by Provider shall be performed as determined by the City in accordance with the Scope of Services set forth in Exhibit "A." Provider shall furnish the qualified personnel, materials, equipment and other items necessary to carry out the terms of this Agreement. Provider shall be responsible for and in full control of the work of all such personnel.

3.3 Reports to the City. Although Provider is responsible for control and supervision of work

performed under this Agreement, the services provided shall be acceptable to the City and shall be subject to a general right of inspection and supervision to ensure satisfactory completion. This right of inspection and supervision shall include, but not be limited to, all reports if requested by the City to be provided by Provider to the City and the right of the City, and the right of the City to audit Provider's records.

3.4 Compliance with All Laws. Provider shall comply with all applicable laws, ordinances, rules, regulations and executive orders of the federal, state and local government, which may affect the performance of this Agreement. Any provision required by law, ordinances, rules, regulations, or executive orders to be inserted in this Agreement shall be deemed inserted, whether or not such provisions appear in this Agreement.

## 4. NOTICE PROVISIONS

Notice. Any notice concerning this Agreement shall be in writing and sent by certified or registered mail as follows:

To the City's Authorized Representative:

Eileen Hamlin, CFM
Stormwater Analyst
City of Flagstaff
211 W. Aspen
Flagstaff, Arizona 86001

To Provider:

## 5. INDEMNIFICATION

To the fullest extent permitted by law, Provider shall indemnify, defend, save and hold harmless the City of Flagstaff and its officers, officials, agents, and employees (hereinafter referred to as "Indemnitee") from and against any and all claims, actions, liabilities, damages, losses, or expenses (including court costs, attorneys' fees, and costs of claim processing, investigation and litigation) (hereinafter referred to as "Claims") for bodily injury or personal injury (including death), or loss or damage to tangible or intangible property caused, or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of Provider or any of its owners, officers, directors, agents, employees or subcontractors. This indemnity includes any claim or amount arising out of or recovered under the Workers' Compensation Law or arising out of the failure of such Provider to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. It is the specific intention of the parties that the Indemnitee shall, in all instances, except for Claims arising solely from the negligent or willful acts or omissions of the Indemnitee, be indemnified by Provider from and against any and all claims. It is agreed that Provider shall be responsible for primary loss investigation, defense and judgment costs where this indemnification is applicable. Provider shall waive all rights of subrogation against the City, its officers, officials, agents and employees for losses arising from the work performed by Provider for the City.

## 6. INSURANCE

Provider and subcontractors, if any, shall procure and maintain until all of their obligations have been discharged, including any warranty periods under this Agreement are satisfied, insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the work hereunder by Provider, its agents, representatives, employees or subcontractors.

The insurance requirements herein are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement. The City in no way warrants that the minimum limits contained herein are sufficient to protect Provider from liabilities that may arise out of the performance of the work under this Agreement by Provider, its agents, representatives, employees or subcontractors and Provider is free to purchase additional insurance as may be determined necessary.

**A**. Minimum Scope and Limits of Insurance. Provider shall provide coverage at least as broad and with limits of liability not less than those stated below.

1. Automobile Liability - Any Auto or Owned, Hired and Non-Owned Vehicles
(Form CA 0001, ed. 12/93 or any replacement thereof.)
Combined Single Limit Per Accident for Bodily Injury and Property Damage $1,000,000

2. Professional Liability $2,000,000

**B. SELF-INSURED RETENTIONS/DEDUCTIBLES:** Any self-insured retentions and deductibles must be noted to the City. However, the Proposer shall be solely responsible for any self-insured and/or deductibles associated with the Proposer's insurance coverage.

**C. OTHER INSURANCE REQUIREMENTS:** The policies are to contain, or be endorsed to contain, the following provisions:

1. Commercial General Liability and Automobile Liability Coverages:

   a. The City of Flagstaff, its officers, officials, and employees are additional insureds with respect to liability arising out of: activities performed by, or on behalf of, the Provider; including the City's general supervision of the Provider; products and completed operations of the Provider: and automobiles owned, leased, hired or borrowed by the Provider.

   b. The Provider's insurance shall contain broad form contractual liability coverage.

   c. The Provider's insurance coverage shall be primary insurance with respect to the City, its, officers, officials, and employees. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be in excess to the coverage of the Provider's insurance and shall not contribute to it.

   d. The Provider's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

   e. Coverage provided by the Provider shall not be limited to the liability assumed under the indemnification provisions of this contract.

   f. The policies shall contain a waiver of subrogation (not including auto) against the City, its officers, officials, and employees for losses arising from work performed by the Provider for the City.

2. Workers' Compensation and Employer's Liability Coverage: The insurer shall agree to waive all rights of subrogation against the City, its officers, officials, employees and volunteers for losses arising from work performed by the Provider for the City.

6.1 Notice of Cancellation. Each insurance policy required by the insurance provisions of this Agreement shall provide the required coverage and shall not be suspended, voided or canceled except after thirty (30) days prior written notice has been given to the City, except when cancellation is for non-payment of premium, then at least ten (10) days prior notice shall be given to the City. Such notice shall be sent directly to:

**Rick Compau, C.P.M., CPPO, CPPB**
**Purchasing Director**
**City of Flagstaff, Purchasing Division**
**211 W. Aspen Ave.**
**Flagstaff, Arizona 86001**

6.2 Acceptability of Insurers. Insurance shall be placed with insurers duly licensed or authorized to do business in the State of Arizona and with an "A.M. Best" rating of not less than A- VII, or receiving prior approval by the City. The City in no way warrants that the above-required minimum insurer rating is sufficient to protect Provider from potential insurer insolvency.

6.3 Verification of Coverage. Prior to commencing work or services**,** Provider shall furnish the City with certificates of insurance (ACORD form or equivalent approved by the City) as required by this Agreement. The certificates for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf.

All certificates and any required endorsements shall be received and approved by the City before work commences. Each insurance policy required by this Agreement shall be in effect at or prior to commencement of work under this Agreement and remain in effect for the duration of this Agreement. Failure to maintain the insurance policies as required by this Agreement or to provide evidence of renewal shall constitute a material breach of contract.

All certificates required by this Agreement shall be sent directly to **Rick Compau, C.P.M., CPPO, CPPB, Purchasing Director, City of Flagstaff, Purchasing Division, 211 W. Aspen Ave., Flagstaff, AZ**. **86001.** The City project/contract number and project description shall be noted on the certificate of insurance. The City reserves the right to request and receive within ten (10) days, complete, certified copies of all insurance policies required by this Agreement at any time**.** The City shall not be obligated, however, to review same or to advise Provider of any deficiencies in such policies and endorsements, and such receipt shall not relieve Provider from, or be deemed a waiver of the City's right to insist on, strict fulfillment of Provider's obligations under this Agreement.

6.4 Subcontractors. Providers' certificate(s) shall include all subcontractors as additional insureds under its policies **or** Provider shall furnish to the City separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to the minimum requirements identified above.

6.5 Approval. Any modification or variation from the insurance requirements in this Agreement shall be made by the City Attorney's office, whose decision shall be final. Such action shall not require a formal amendment to this Agreement, but may be made by administrative action.

## 7. DEFAULT AND TERMINATION

7.1 Events of Default Defined. The following shall be Events of Default under this Agreement:

7.1.1 Any material misrepresentation made by Provider to the City;

7.1.2 Any failure by Provider to perform its obligations under this Agreement including, but not limited to, the following:

7.1.2.1 Failure to commence work at the time(s) specified in this Agreement due to a reason or circumstance within Provider's reasonable control;

7.1.2.2 Failure to perform the work with sufficient personnel and equipment or with sufficient equipment to ensure completion of the work within the specified time;

7.1.2.3 Failure to perform the work in a manner reasonably satisfactory to the City;

7.1.2.4 Failure to promptly correct or re-perform within a reasonable time work that was rejected by the City as unsatisfactory or erroneous;

7.1.2.5 Discontinuance of the work for reasons not beyond Provider's reasonable control;

7.1.2.6 Failure to comply with a material term of this Agreement, including, but not limited to, the provision of insurance; and

7.1.2.7 Any other acts specifically stated in this Agreement as constituting a default or a breach of this Agreement.

7.2 Remedies.

7.2.1 Upon the occurrence of any Event of Default, the City may declare Provider in default under this Agreement. The City shall provide written notification of the Event of Default and any intention of the City to terminate this Agreement. Upon the giving of notice, the City may invoke any or all of the following remedies:

7.2.1.1 The right to cancel this Agreement as to any or all of the services yet to be performed;

7.2.1.2 The right of specific performance, an injunction or any other appropriate equitable remedy;

7.2.1.3 The right to monetary damages;

7.2.1.4 The right to withhold all or any part of Provider's compensation under this Agreement;

7.2.1.5 The right to deem Provider non-responsive in future contracts to be awarded by the City; and

7.2.1.6 The right to seek recoupment of public funds spent for impermissible purposes.

7.2.2 The City may elect not to declare an Event of Default or default under this Agreement or to terminate this Agreement upon the occurrence of an Event of Default. The parties acknowledge that this provision is solely for the benefit of the City, and that if the City allows Provider to continue to provide the Services despite the occurrence of one or more Events of Default, Provider shall in no way be relieved of any of its responsibilities or obligations under this Agreement, nor shall the City be deemed to waive or relinquish any of its rights under this Agreement.

7.2.3 Any excess costs incurred by the City in the event of termination of this Agreement for default, or in the event the City exercises any of the remedies available to it under this Agreement, may be offset by use of any payment due for services completed before termination of this Agreement for default or the exercise of any remedies. If the offset amount is insufficient to cover excess costs, Provider shall be liable for and shall remit promptly to the City the balance upon written demand from the City.

## 8. GENERAL PROVISIONS

8.1 Headings. The article and section headings contained herein are for convenience in reference and are not intended to define or limit the scope of any provision of this Agreement.

8.2 Jurisdiction and Venue. This Agreement shall be administered and interpreted under the laws of the State of Arizona. Provider hereby submits itself to the original jurisdiction of those courts located within Coconino County, Arizona.

8.3 Attorney's Fees. If suit or action is initiated in connection with any controversy arising out of this Agreement, the prevailing party shall be entitled to recover in addition to costs such sum as the court may adjudge reasonable as attorney fees, or in event of appeal as allowed by the appellate court.

8.4 Severability. If any part of this Agreement is determined by a court to be in conflict with any statute or constitution or to be unlawful for any reason, the parties intend that the remaining provisions of this Agreement shall remain in full force and effect unless the stricken provision leaves the remaining Agreement unenforceable.

8.5 Assignment. This Agreement is binding on the heirs, successors and assigns of the parties hereto. This Agreement may not be assigned by either the City or Provider without prior written consent of the other.

8.6 Conflict of Interest. Provider covenants that Provider presently has no interest and shall not acquire any interest, direct or indirect, that would conflict in any manner or degree with the performance of services required to be performed under this Agreement. Provider further covenants that in the performance of this Agreement, Provider shall not engage any employee or apprentice having any such interest. The parties agree that this Agreement may be cancelled for conflict of interest in accordance with Arizona Revised Statutes § 38-511.

8.7 Authority to Contract. Each party represents and warrants that it has full power and authority to enter into this Agreement and perform its obligations hereunder, and that it has taken all actions necessary to authorize entering into this Agreement.

8.8 Integration. This Agreement represents the entire understanding of City and Provider as to those matters contained in this Agreement, and no prior oral or written understanding shall be of any force or effect with respect to those matters. This Agreement may not be modified or altered except in writing signed by duly authorized representatives of the parties.

8.9 Non-appropriation. In the event that no funds or insufficient funds are appropriated and budgeted in any fiscal period of the City for payments to be made under this Agreement, the City shall notify Provider of such occurrence, and this Agreement shall terminate on the earlier of the last day of the fiscal period for which sufficient appropriation was made or whenever the funds appropriated for payment under this Agreement are exhausted. No payments shall be made or due to Provider under this Agreement beyond these amounts appropriated and budgeted by the City to fund payments under this Agreement.

8.10 Compliance with Federal Immigration Laws and Regulations. Provider hereby warrants to the City that the Provider and each of its subcontractors ("Subcontractors") will comply with, and are contractually obligated to comply with, all Federal Immigration laws and regulations that relate to its employees and A.R.S. §23-214(A) (hereinafter "Provider Immigration Warranty").
A breach of the Provider Immigration Warranty shall constitute a material breach of this Agreement and shall subject the Provider to penalties up to and including termination of this Agreement at the sole discretion of the City.

The City retains the legal right to inspect the papers of any Provider or Subcontractor employee who works on this Agreement to ensure that the Provider or Subcontractor is complying with the Provider Immigration Warranty. Provider agrees to assist the City in regard to any such inspections.

The City may, at its sole discretion, conduct random verification of the employment records of the Provider and any of subcontractors to ensure compliance with Provider's Immigration Warranty. Provider agrees to assist the City in regard to any random verifications performed.

The provisions of this Article must be included in any contract the Provider enters into with any and all of its subcontractors who provide services under this Agreement or any subcontract. "Services" are defined as furnishing labor, time or effort in the State of Arizona by a contractor or subcontractor. Services include construction or maintenance of any structure, building or transportation facility or improvement to real property.

8.11 Subcontractors. This Agreement or any portion thereof shall not be sub-contracted without the prior written approval of the City. No Subcontractor shall, under any circumstances, relieve Provider of its liability and obligation under this Agreement. The City shall deal through Provider and any Subcontractor shall be dealt with as a worker and representative of Provider. Provider assumes responsibility to the City for the proper performance of the work of Subcontractors and any acts and omissions in connection with such performance. Nothing in the Contract Documents is intended or deemed to create any legal or contractual relationship between the City and any Subcontractor or Sub-Subcontractor, including but not limited to any third-party beneficiary rights.

8.13 Waiver. No failure to enforce any condition or covenant of this Agreement by the City shall imply or constitute a waiver of the right of the City to insist upon performance of the condition or covenant, or of any other provision of this Agreement, nor shall any waiver by the City of any breach of any one or more conditions or covenants of this Agreement constitute a waiver of any succeeding or other breach under this Agreement.

## 9. DURATION

This Agreement shall become effective on and from the day and year executed by the parties, indicated below, and shall continue in force for an initial term of five (5) years, beginning [ , 2013 through , 2018], unless sooner terminated as provided above. Upon mutual agreement between the City and Provider, this Agreement may be renewed for a maximum of one (1) additional five (5) year term, upon mutual agreement from both parties.

.

| **City of Flagstaff** | **Provider** |
|---|---|
| Kevin Burke, City Manager | |
| Attest: | |
| City Clerk | |
| Approved as to form: | |
| City Attorney | Date of Execution: |

ATTACHMENT B

City of Flagstaff
Arizona

# Final Report
# Long-Term Financial Plan and Rate and Fee Study

April 7, 2010

WILLDAN Financial Services
27368 Via Industria, Suite 110
Temecula, CA 92591
T: 951.587.3500
F: 951.587.3510

TischlerBise
Fiscal, Economic & Planning Consultants
43460 Ridge Park Drive, Suite 200W
Temecula, CA 92590
T: 951.719.8478

WILLDAN Financial Services | extending your reach

April 7, 2010

Mr. Randy Pellatz
Utilities Director
City of Flagstaff
211 West Aspen Avenue
Flagstaff, AZ 86001

Dear Mr. Pellatz,

Willdan Financial Services (Willdan) and TischlerBise are pleased to present this report on the long-term financial plan and rate and fee study conducted for the City of Flagstaff (City).

This report was undertaken as the City is facing several challenges to continuing its high-quality operations. The focus of this study is to ensure that the utilities have sufficient revenues to meet their operational, capital and debt service obligations and that rates are set proportionate to the costs of providing utility service to each customer class. Our report outlines the approach, methodology, findings, and conclusions of this study.

This report has been prepared using generally accepted rate setting techniques. The City's utility accounting, budgeting, and billing records were the primary sources for the data contained within the report. Furthermore, Willdan and TischlerBise have worked closely with City staff and the City's Water Commission over the course of this project. The conclusions contained within this report provide the City with a set of recommendations to provide stable defensible funding for continued high-quality operations. We are confident that the results developed based on the cost of service analysis will result in fair and equitable rates to the City's users.

It was a pleasure working with you, and we also wish to express our thanks to Ryan Roberts and other staff members at the City, along with the entire Water Commission, for the support and cooperation extended throughout the study.

Sincerely,

Willdan Financial Services

Pierce E. Rossum
Senior Analyst

TischlerBise

Brian Jewett
Vice-President

# Table of Contents

# List of Figures

# Executive Summary

The City retained Willdan Financial Services (Willdan) to prepare a long-term financial plan and rate and fee study for each utility to ensure the utilities have sufficient revenues to meet their operational, capital and debt service obligations and that rates are set proportionate to the costs of providing utility service to each customer class. As part of this rate study, the consulting team, consisting of Willdan and TischlerBise, facilitated dialogue with the City's Water Commission and City staff at several Commission meetings. During these meetings, the Commission made recommendations to be incorporated into the study where appropriate. This report documents the findings, analyses and recommendations of the comprehensive rate and fee study effort.

The City desires rates and fees that fully fund operations, maintenance, and present and future capital costs for plant expansions as well as distribution systems and collection system capacity, infrastructure rehabilitation, enhancements, and expansion. The City is facing several challenges to continuing its high-quality operations. Utility revenues are not keeping pace with increasing operational and capital costs. Customer account growth has slowed to less than a 0.5% annual rate. A prolonged drought has necessitated the need to procure additional water supply through drilling of new wells. Utility infrastructure is aging and must be replaced soon. In fact, during the course of this financial study, six water mains ruptured resulting in large losses of water and other costs. Therefore, the purpose of the rate and fee financial study is to provide recommendations on changes to the current utility rate and fee structures to meet these challenges.

The graphs (Figures E-1, E-2 and E-3) below demonstrate the current and projected financial conditions of the water, wastewater and reclaimed water systems absent a comprehensive rate restructuring and assuming no rate increases over the next 10 years. As the figures illustrate, holding rate structures and rates constant will result in depleted reserve funds, potential General Fund borrowing, lower quality operations and deferred capital projects that are urgently needed.

Figure E-1: Projection Using Current Water Rates

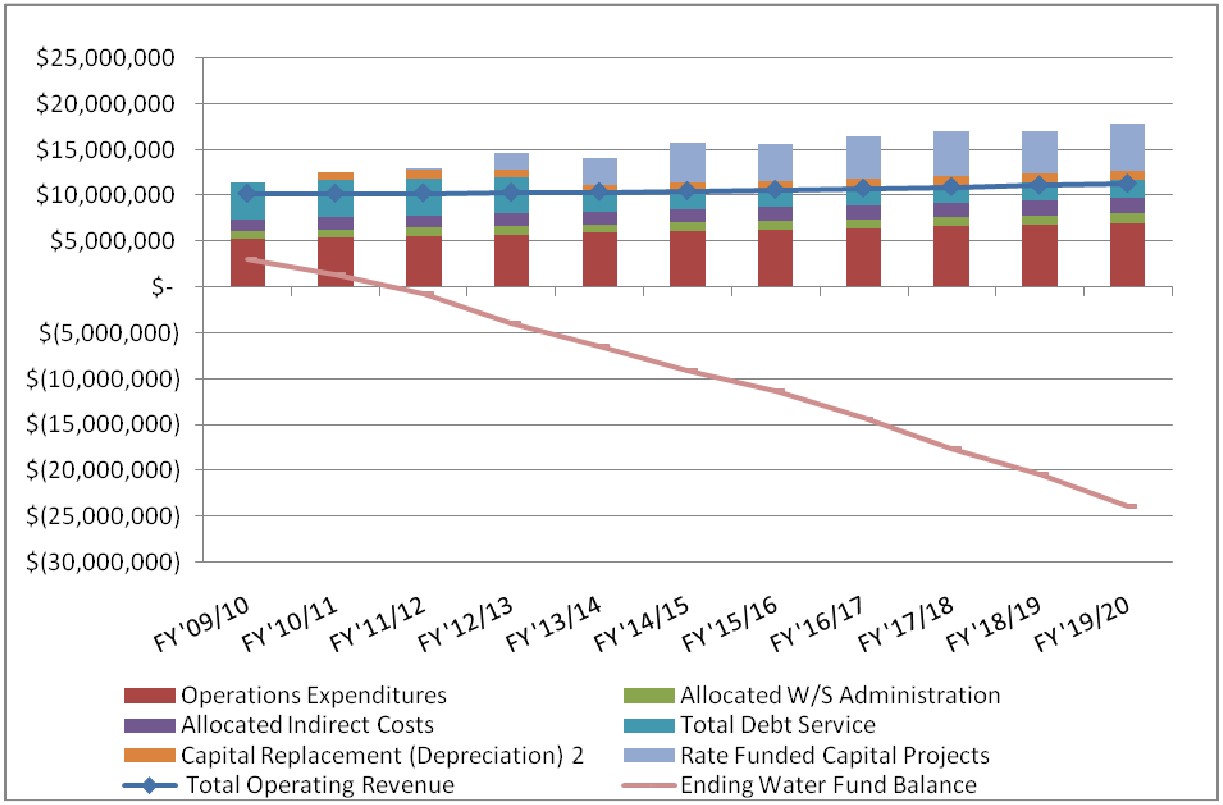



Figure E-2: Projection Using Current Wastewater Rates

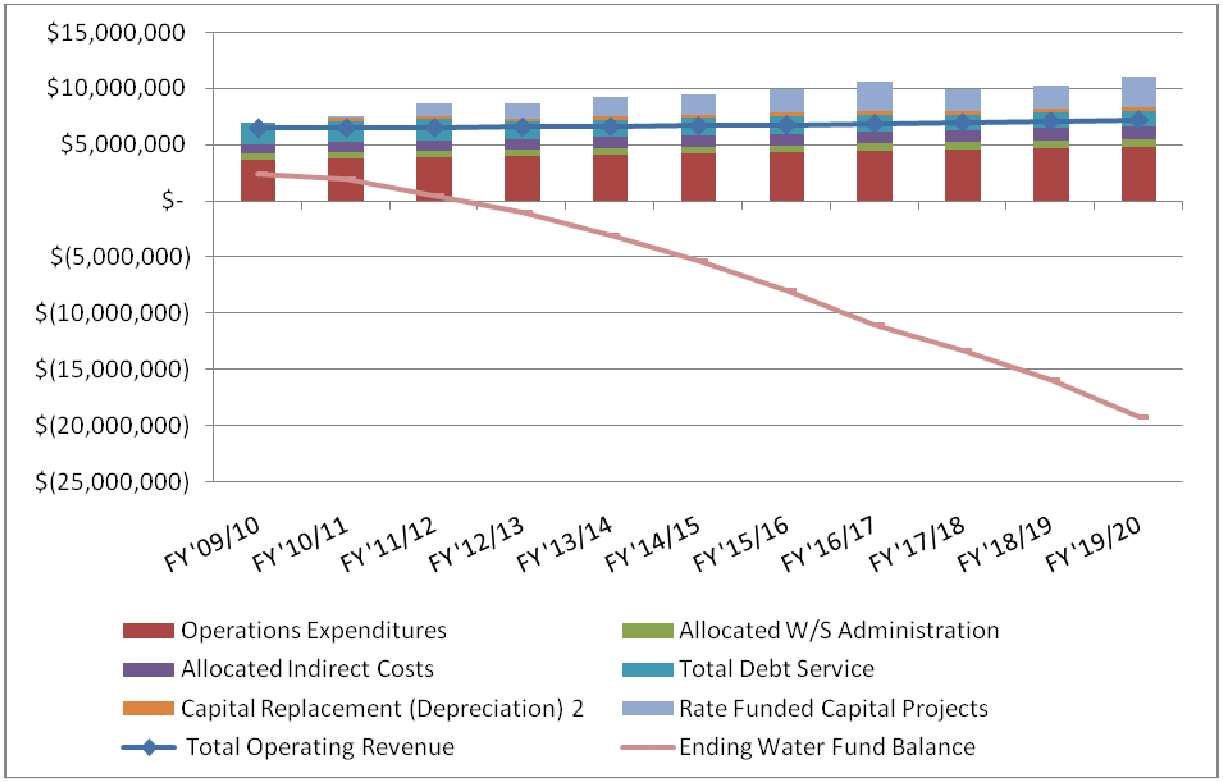
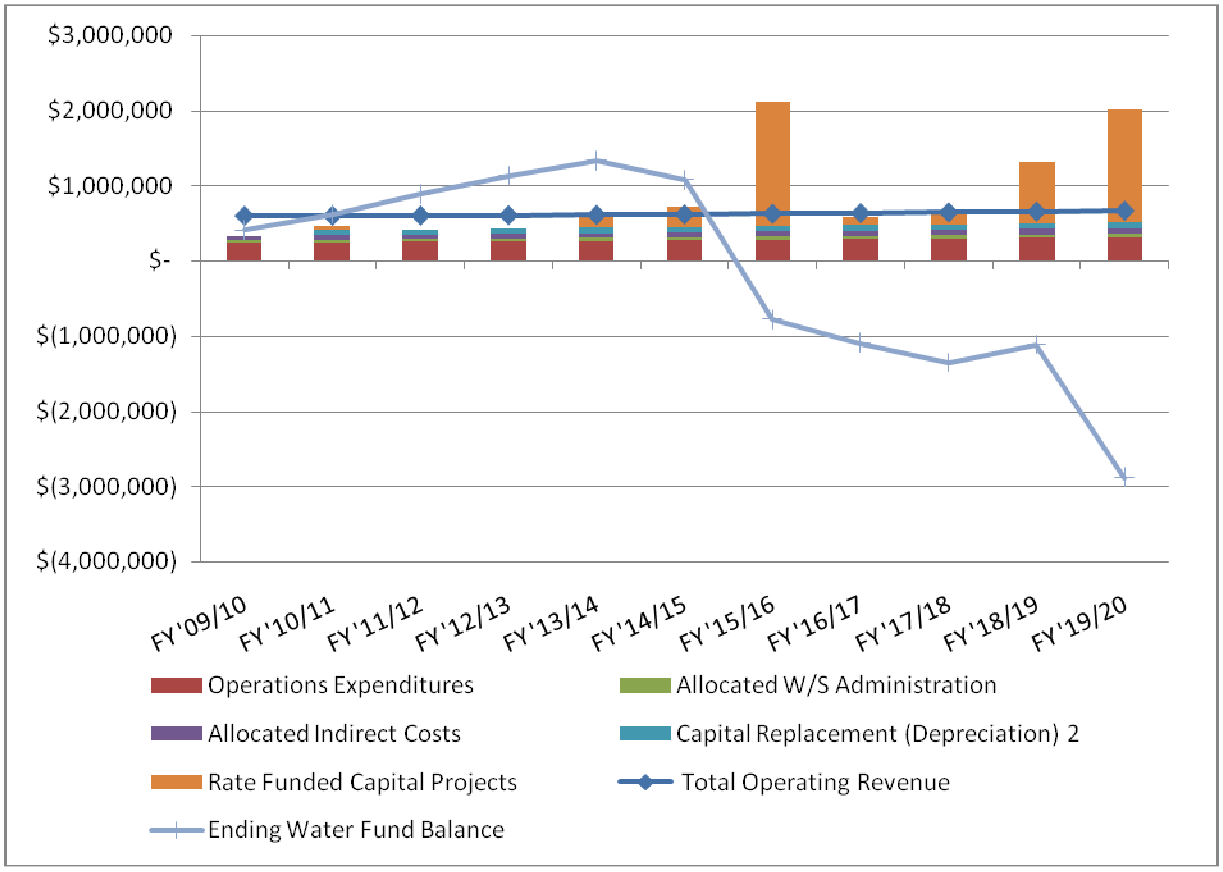


Figure E-3: Projection Using Current Reclaimed Water Rates




The graphs (Figures E-4, E-5 and E-6) below demonstrate the projected financial conditions of the water, wastewater and reclaimed water systems assuming adoption of a comprehensive rate restructuring and recommended rate increases over the next 10 years. As the figures illustrate, the proposed rate structures and rate increases will enable the City to continue its high quality operations, reduce the likelihood of future borrowing, establish prudent reserve fund levels, and fund capital projects that are urgently needed primarily on a "pay as you go" basis.

Figure E-4: Projection Using Proposed Water Rates

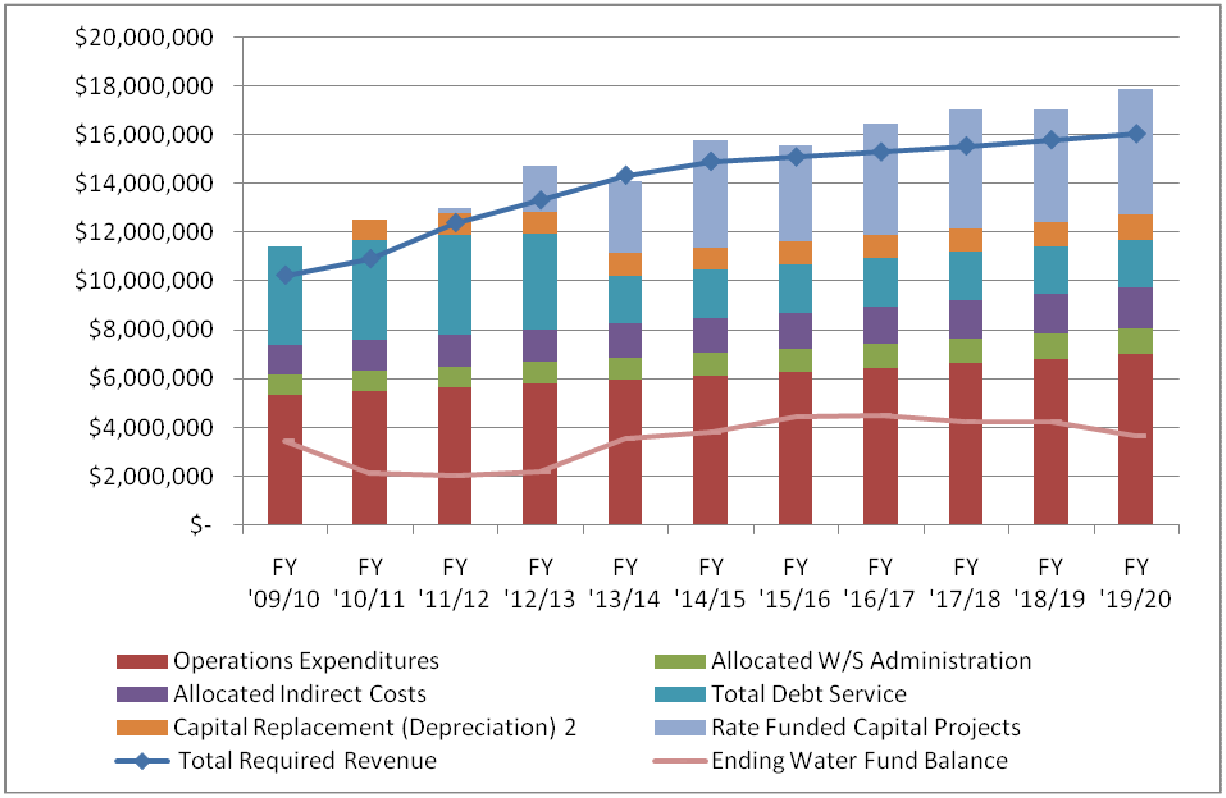



Figure E-5: Projection Using Proposed Wastewater Rates

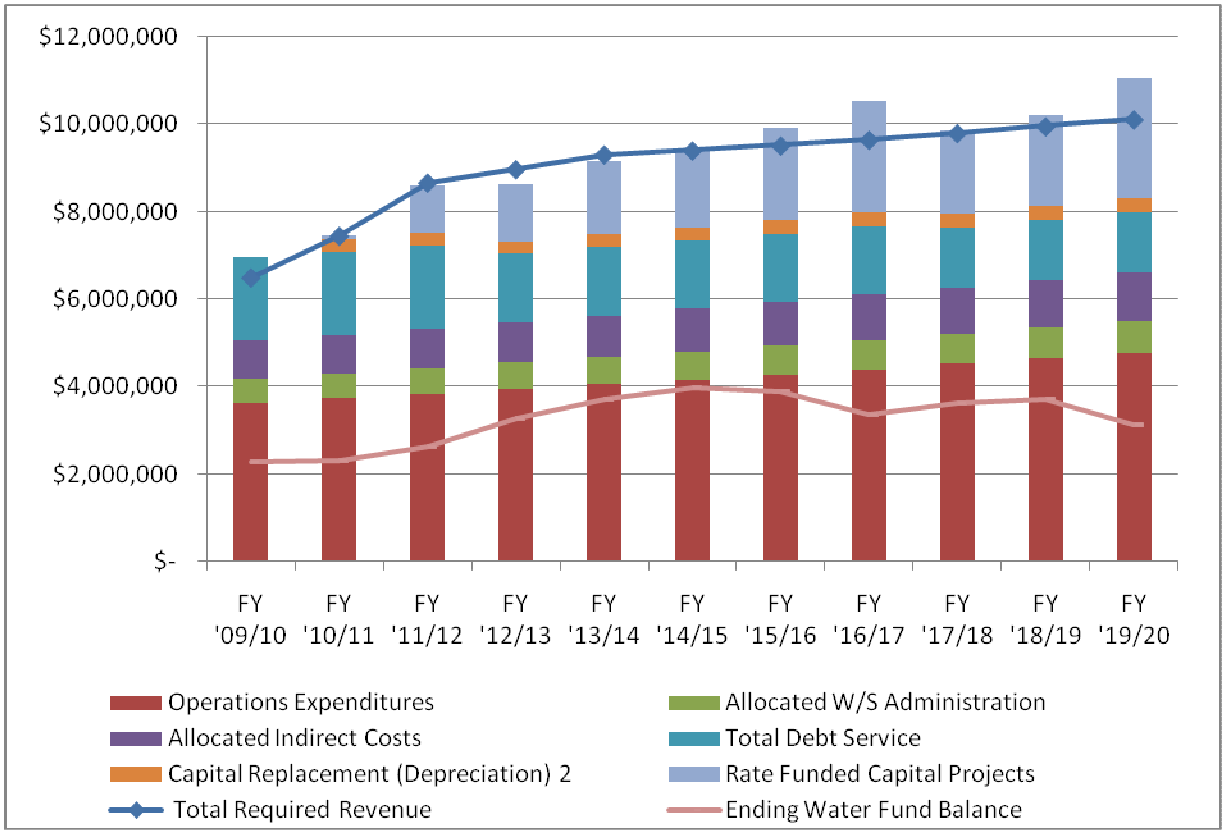
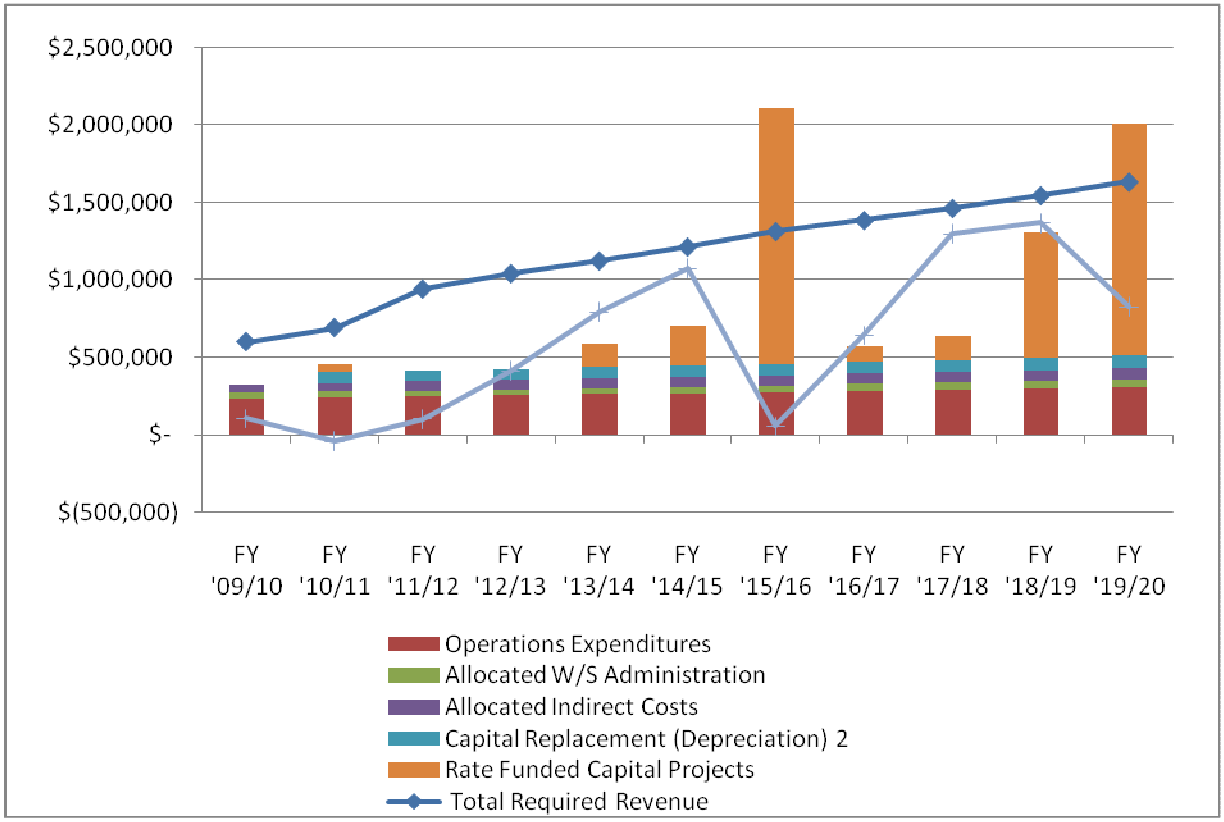


Figure E-6: Projection Using Proposed Reclaimed Water Rates




After completing the financial plans and rate studies, and after several meetings with the City Water Commission and City staff, the following tables (Figures E-7, E-8, E-9, and E-10) present the recommended rates and fees for each utility system. The following report provides detail regarding the supporting rate analysis and recommendations.

Figure E-7: Proposed Water Fixed Charge

| Description | Current | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 |
|---|---|---|---|---|---|---|
| **All Customer Classes (except Private Fire)** | | | | | | |
| **Meter Size** | **Monthly Base Charge by Meter** | | | | | |
| 3/4" | $ 6.48 | $ 10.02 | $ 11.38 | $ 12.18 | $ 13.03 | $ 13.42 |
| 1" | 8.02 | 11.80 | 13.40 | 14.34 | 15.34 | 15.80 |
| 1 1/2" | 9.62 | 16.25 | 18.45 | 19.74 | 21.12 | 21.75 |
| 2" | 14.00 | 21.58 | 24.50 | 26.22 | 28.06 | 28.90 |
| 3" | 41.80 | 34.03 | 38.64 | 41.34 | 44.24 | 45.57 |
| 4" | 58.00 | 51.82 | 58.83 | 62.95 | 67.36 | 69.38 |
| 6" | 89.80 | 96.28 | 109.31 | 116.96 | 125.15 | 128.91 |
| 8" | 124.00 | 149.64 | 169.89 | 181.78 | 194.51 | 200.34 |
| 10" | 168.80 | 211.89 | 240.56 | 257.40 | 275.42 | 283.68 |
| **Private Fire Connections** | | | | | | |
| **Connection Size** | **Monthly Private Fire Protection Charge** | | | | | |
| 4" | $ 22.68 | $ 9.41 | $ 10.68 | $ 11.43 | $ 12.23 | $ 12.59 |
| 6" | 44.23 | 27.33 | 31.02 | 33.19 | 35.52 | 36.58 |
| 8" | 70.32 | 58.23 | 66.11 | 70.74 | 75.69 | 77.96 |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

Figure E-8: Proposed Water Rate Structure

| Description | Current* | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 |
|---|---|---|---|---|---|---|
| **Single Family Residential** | | | | | | |
| Tier 1 (0 - 3,700 gal) | 3.02 | 2.07 | 2.34 | 2.51 | 2.68 | 2.77 |
| Tier 2 (3,700 - 6,400 gal) | 3.54 | 2.69 | 3.05 | 3.26 | 3.49 | 3.59 |
| Tier 3 (6,400 - 11,700 gal) | 5.03 | 4.13 | 4.69 | 5.02 | 5.37 | 5.53 |
| Tier 4 (11,701+ gal) | 8.77 | 8.26 | 9.38 | 10.04 | 10.74 | 11.06 |
| Multi-Family Residential | 2.37 | 2.66 | 3.02 | 3.23 | 3.45 | 3.56 |
| Commercial/Schools | 3.17 | 2.83 | 3.21 | 3.43 | 3.67 | 3.78 |
| Lawn Meters [1] | 3.02 | 2.83 | 3.21 | 3.43 | 3.67 | 3.78 |
| Manufacturing | 2.88 | 2.78 | 3.16 | 3.38 | 3.62 | 3.73 |
| Northern Arizona University | 2.80 | 2.73 | 2.95 | 3.15 | 3.37 | 3.47 |
| Standpipes | 5.60 | 4.88 | 5.07 | 5.34 | 5.63 | 5.78 |
| **Water Energy Cost [2]** | - | 0.75 | | | | |

*Current Tier Structure: 0-5,000, 5,001-15,000, 15,001-25,000, & Over 25,001 gallons

[1] Lawn Meters are now tied to the Commercial/Schools rate, rather than the Single Family rate

[2] Water Energy Cost, per unit, applied to all customer classes.
Cost to be calculated annually based on a one-year rolling average of water related energy costs.

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

## Figure E-9: Proposed Wastewater Rate Structure

| Description | Customer Class | Current | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 |
|---|---|---|---|---|---|---|---|
| | | Monthly Sewer Discharge Rates per 1,000 gal ($) | | | | | |
| Residential | | | | | | | |
| Single- and Multi-Family | R1 - R4 | 3.12 | 3.08 | 3.59 | 3.69 | 3.80 | 3.80 |
| Non-Residential | | | | | | | |
| Car Washes | CW | 2.58 | 3.06 | 3.56 | 3.70 | 3.82 | 3.82 |
| Laundromats | L | 2.81 | 3.14 | 3.65 | 3.80 | 3.91 | 3.92 |
| Commercial | C | 3.01 | 3.22 | 3.75 | 3.90 | 4.01 | 4.02 |
| Hotels & Motels | H | 4.09 | 4.32 | 5.03 | 5.21 | 5.37 | 5.38 |
| Restaurants | RF | 5.04 | 5.20 | 6.05 | 6.27 | 6.45 | 6.46 |
| Industrial Laundries | IL | 4.47 | 4.77 | 5.55 | 5.76 | 5.93 | 5.94 |
| Manufacturing | MN | 3.05 | 3.46 | 4.02 | 4.18 | 4.31 | 4.32 |
| Pet Food Manufacturers | PF | 8.34 | 7.64 | 8.89 | 9.19 | 9.47 | 9.48 |
| Soft Drink Bottling | SD | 7.31 | 6.05 | 7.04 | 7.29 | 7.50 | 7.51 |
| Ice Cream Cone Mfg | IC | 10.65 | 9.46 | 11.02 | 11.38 | 11.72 | 11.73 |
| Northern Arizona University | NA | 2.68 | 2.79 | 3.24 | 3.37 | 3.48 | 3.48 |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

## Figure E-10: Proposed Reclaimed Water Rate Structure

| Description | Customer Class | Current | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | Notes |
|---|---|---|---|---|---|---|---|---|
| Commercial (no main Ext) | C | 1.1095 | 1.25 | 1.38 | 1.46 | 1.55 | 1.59 | 35% of C |
| Commercial (w/Main Ext) | C | 2.3775 | 2.68 | 2.97 | 3.14 | 3.32 | 3.40 | 75% of C |
| Manufacturing (no main Ext) | MN | 1.0080 | 1.24 | 1.37 | 1.45 | 1.53 | 1.57 | 35% of Mfg |
| Manufacturing (w/Main Ext) | MN | 2.1600 | 2.61 | 2.77 | 2.93 | 3.09 | 3.17 | 75% of Mfg |
| City Departmental | MU | 2.2600 | 1.25 | 1.38 | 1.46 | 1.55 | 1.59 | 35% C |
| NAU (Sinclair Wash-Intramural Fields) | NA | 0.9800 | 1.22 | 1.29 | 1.37 | 1.44 | 1.48 | 35% of NAU |
| NAU all other | NA | 2.1000 | 2.61 | 2.77 | 2.93 | 3.09 | 3.17 | 75% of NAU |
| Private Residential | | | | | | | | |
| Tier 1 | R1 | 1.0570 | 0.98 | 1.08 | 1.14 | 1.20 | 1.23 | 35% of R1 |
| Tier 2 | R1 | 1.2390 | 1.20 | 1.33 | 1.40 | 1.48 | 1.52 | 35% of R1 |
| Tier 3 | R1 | 1.7605 | 1.71 | 1.90 | 2.02 | 2.14 | 2.20 | 35% of R1 |
| Tier 4 | R1 | 3.0695 | 3.15 | 3.54 | 3.77 | 4.02 | 4.13 | 35% of R1 |
| Self Loading Stations and Hydrant Meters | RS/WR | 1.0700 | 2.55 | 2.99 | 3.19 | 3.36 | 3.55 | Cost Analysis |
| Off Peak/Golf Course | WR | 1.0700 | 1.04 | 1.38 | 1.46 | 1.55 | 1.59 | 35% of C |

* Water Energy Cost included

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

# Project Background

The City of Flagstaff owns and operates water, wastewater and reclaimed water systems for residents and businesses within City limits as well as for customers outside City limits. As of Fiscal Year 2009/10, the water system provides service to approximately 19,000 residential and non-residential potable water customers, the wastewater system provides service to approximately 17,350 residential and non-residential customers, and the reclaimed water system provides service to approximately 100 residential and non-residential customers. The City operates each system as a self-supporting enterprise, with revenues and expenditures accounted for within one enterprise fund, separate from other enterprise and General Fund activities.

The City's Utilities Department is responsible for water production and delivery, wastewater collection and treatment, reclaimed water delivery and stormwater management. Additionally, the Department is responsible for water resource management, water policy development, water conservation and industrial waste programs. The Department maintains approximately 415 miles of potable water mains on twelve major reservoirs operating on three distinct pressure zones. Recent water main breaks are creating an urgent demand to aggressively replace mains and other infrastructure as these assets are reaching useful life capacities. The Lake Mary Water Production Group operates an eight million gallons per day (MGD) surface water processing plant obtaining raw water from Lake Mary. Seasonal springs and a shallow well aquifer system are capable of up to two MGD of production during the summer. Eighteen deep wells in two major well fields and five local deep wells located within the corporate boundary of the City may contribute up to an additional 12 MGD of potable water.

The City operates two wastewater treatment plants that serve a population of approximately 65,000. The Wildcat Hill Wastewater Treatment Plant (WWTP) is a six MGD facility and the Rio de Flag Water Reclamation Plant can process up to a four MGD flow. The City maintains approximately 270 miles of gravity flow sanitary sewer lines. Additionally, the City maintains about 24 miles of Class A+ reclaimed water fed off a two million gallon storage tank. Currently, the largest users of reclaimed water are the City Parks and Recreation Division, Northern Arizona University, SCA Tissue, local golf courses, and various construction related uses. Reclaimed water service is available from the existing mains to the residential level for permitted non-potable uses.

The City's Utilities Department has completed a major upgrade to the Wildcat Hill WWTP from Class B to Class A+ quality reclaimed water. The Department is in the planning stages for major potable water acquisition projects. The City has purchased Red Gap Ranch located approximately 35 miles east of the City for potential groundwater development. Other water sources are under consideration and there is a possibility of a future Colorado River surface water allotment. Additional groundwater sources currently under development are the Ft. Tuthill and Sinagua deep-water wells that have been recently completed.

The City is facing several challenges to continuing its high-quality operations. Utility revenues are not keeping pace with increasing operational and capital costs. Customer account growth has slowed to less than a 0.5% annual rate. A prolonged drought has necessitated a need to procure additional water

supply through drilling of new wells. Additionally, with an aging utility infrastructure the Utility needs to implement an ongoing replacement program. In fact, during the course of this financial study, six water mains ruptured resulting in large losses of water and other costs.

The current water and wastewater rate model used by the City is over 10 years old. Due to the nature of the existing model and recent market conditions, the model does not accurately predict the revenue stream required for services provided. The City desires rates and fees that fully fund operations, maintenance, and present and future capital costs. The capital costs include plant expansions, distribution systems, and collection system rehabilitation, enhancements, and expansion.

## Key Financial Plan Objectives

Several objectives were identified during the study to guide decisions regarding the proposed financial plans and rate structures. The major objectives of the study were:

- Utility rates and fees should generate sufficient revenues to meet operating costs, capital program requirements, debt service obligations, and maintain adequate reserves consistent with sound financial management practices
- Utility rates should be set proportionate to the cost of providing utility service to each customer class to promote fairness and equity
- A financial plan that shifts a majority of future capital funding to a "pay as you go" basis and reduces each utility's overall debt burden
- A financial plan that minimizes future rate and fee impacts on existing and new customers
- Utility rate and fee structures should be supported by a financial model that is easy to update should costs and assumptions change in the future beyond what was projected at the time of this report

In reviewing the above objectives, it should be noted that the City has limited control over external forces such as growth, consumer behavior, and system usage. Recognizing these factors, we believe that the recommendations in this study provide a fair, reasonable, and balanced set of proposed rates and fees for the City that, to the extent possible, meets these key objectives.

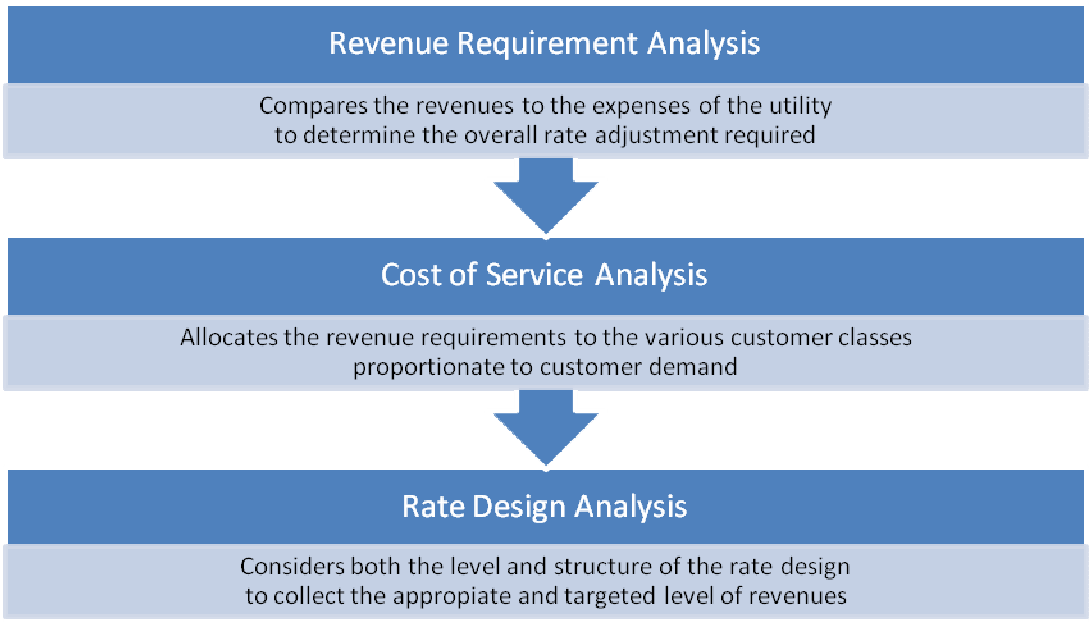
## Overview of the Rate Study Process

The financial planning and rate study efforts were conducted in coordination with City staff and the Water Commission. During the course of the project, the consulting team facilitated several Commission meetings and discussions with Commission members and City staff to review, explore and analyze rate setting principles and utility financial, operational and capital issues. The meetings consisted of presentations of information and data related to the City's utility revenue needs, capital improvement plans, current rate structures, other relevant rate and financial issues. This process enabled the City staff, Commission members and the consulting team to develop a multi-faceted understanding of financing planning issues, and to develop a broad consensus on a number of policy items and rate recommendations.

The scope of the study resulted in the development of cost-based water, wastewater and reclaimed water user charges through a comprehensive cost of service and rate design study process. Utility rates must be set at a level where a utility's operating and capital expenses are met with the revenues received from customers. This is a significant point, as failure to achieve this level may lead to insufficient funds being available to appropriately maintain the system. To evaluate the adequacy of the City's existing rates, a comprehensive rate study was completed. A comprehensive rate study typically consists of following three interrelated analyses (Figure 1-1 provides an overview of these processes).

- Financial Planning/Revenue Requirement Analysis: Create a ten-year plan to support an orderly, efficient program of on-going maintenance and operating costs, capital improvement and replacement activities, and retirement of outstanding debt. In addition, the long-term plan should fund and maintain reserve balances to adequate levels based on industry standards and City fiscal policies.
- Cost of Service Analysis: Identifies and apportions annual revenue requirements to the different customer classes based on their demand on each utility system.
- Rate Design: Develops a fixed/variable schedule of rates for each customer class to proportionately recover the costs attributable to them. This is also, where other policy objectives can be achieved, such as discouraging wasteful water use. The policy objectives are balanced with the cost of service objectives to maintain the delicate balance between customer equity, financial stability and resource conservation goals.

Figure 1-1: Comprehensive Rate Study Interrelated Analysis




## Overview of the Fee Study Process

Capacity fees are one-time charges that reflect the demands and costs created by new development for additional water and wastewater capacity. Generally, capacity fees are required to demonstrate a reasonable connection between the amount of the fee and the cost to serve new development (i.e. new

development's proportionate share of infrastructure capacity costs). This report documents the assumptions, methodologies, and calculations upon which the capacity fees are based. As documented in this section, the capacity fees are just and reasonable and represent new development's proportionate share of costs for capacity projects from which it will directly benefit.

The infrastructure included in capacity fees are large, system level components and do not include on-site or site specific improvements. Water system capacity can include components for water resources, production, storage, and distribution. Components of wastewater system capacity can include treatment, interceptors, and collection lines.

There are three basic methods used to calculate the various components of the City's capacity fees. The methodologies are used to determine the best measure of demand created by new development for each component of the capacity fees. The methodologies can be classified as looking at the past, present, and future capacities of infrastructure.

1. In instances where infrastructure has been built in advance of new development and has excess capacity available to be utilized by new development, the **buy-in methodology** is utilized. Under this methodology, new development repays the community for previous capacity investments via the capacity fee.
2. The **incremental expansion methodology** is used when a community plans to provide new development the same level-of-service (LOS) that is currently being provided to existing development in increments. Generally, utility infrastructure does not lend itself to this methodology given its nature of having to be in place prior to new development and capacity being constructed in large segments.
3. The **plan-based methodology** utilizes the City's capital improvement plan (CIP) and related master plans to determine new development's share of planned projects. Projects that do not add capacity, such as routine maintenance or replacement of existing facilities, are not included in the fees. Projects that add capacity are further evaluated as to the percentage of the project attributable to existing development versus new development. Only the portion of planned projects attributable to new development is included in the capacity fees.

The majority of the proposed capacity fees utilize the plan-based methodology, with the buy-in methodology being used for recent improvements to the Wildcat Hill Wastewater Treatment Plant.

## Organization of the Report

This report is organized to provide an overview of utility rate setting principles, then a separate detailed review of each utility's rate design process. Each utility section contains the formerly mentioned three analyses. The following sections comprise the long-term financial plan and rate study report:

- Rate Setting Principles
- Water Rate Analysis
- Wastewater Rate Analysis
- Reclaimed Water Rate Analysis
- Water Capacity Fee Analysis
- Wastewater Capacity Fee Analysis

A separate Technical Appendix details the various technical analyses that were used in preparation of this study.

## General Report Summary

This report will review the study in the development of cost-based water, wastewater and reclaimed water user charges through a comprehensive cost of service and rate design study process and review the comprehensive utility rate analyses prepared for the City of Flagstaff Utilities Department. This report has been prepared utilizing generally accepted rate and fee setting techniques. The next section of the report provides an abstract of the rate setting guidelines that were utilized to analyze and design the proposed utility rates.

# Rate Setting Principles

The primary objective of conducting a comprehensive rate study is to determine the adequacy of the existing rates (pricing and structure) and provide the basis for any necessary adjustments to meet the Departments operating and capital needs. The City desires rate structures that fully fund operations, maintenance, and present and future capital costs (plant expansions, distribution systems, and collection system rehabilitation, enhancements, or expansion). Furthermore, the City desired to maintain or possibly enhance its current conservation-based rate structure. Significant consideration and dialogue took place between City staff, Committee members and the consulting team to review the existing rate structure and propose possible changes to meet this additional objective.

Over the past years, many generally accepted principles or guidelines have been established to assist in developing utility rates. The purpose of this section of the report is to provide a general background of the methodology and guidelines used for setting cost based utility rates. This will provide the reader with a higher-level understanding of the general process detailed later in this report.

## Established Principles & Guidelines

As a practical matter, there should be a general set of principles to develop rates. The American Water Works Association (AWWA) establishes these principles in the M1 Manual – *Principles of Water Rates, Fees and Charges.* These guiding principles help to ensure there is a consistent global approach that is employed by all utilities in the development of their rates (water and water-related utilities including sewer and reclaimed water).

Provided below is a short summary listing the established guidelines around which public utilities should consider when setting their rates. These closely reflect the City's specified objectives.

- Rates should be cost-based and equitable, and set at a level such that they provide revenue sufficiency.
- Rates and process of allocating costs should conform to generally accepted rate setting techniques.
- Rates should provide reliable, stable and adequate revenue to meets the utility's financial, operation, and regulatory requirements.
- Rate levels should be stable from year to year (limit "rate shocks").
- Rates should be easy to understand and administer.

These guidelines, along with the City's objectives, have been utilized within this study to help develop utility rates that are cost-based and equitable.

## Revenue Requirements

The method used by most public utilities to establish their revenue requirements is called the "cash basis" approach of setting rates. As the name implies, a public utility combines its cash expenditures over a period of time to determine their required revenues from user rates and other forms of income. The figure below presents the "cash basis" methodology.

Figure 2-1: Overview of the "Cash Basis" Design

+ Operation and Maintenance Expenses
+ Taxes/Transfers
+ Capital Additions Financed with Rate Revenue
+ Debt Service (Principal and Interest)
= Total Revenue Requirements

To ensure existing ratepayers are not paying for growth-related capital projects, Willdan reviewed existing, approved/pending, and proposed Capital Improvement Projects (CIPs) with City staff to allocate projects between new (growth) and existing customers (operations and maintenance or "O&M"). Additionally, capital replacement expense is sometimes included to stabilize annual required revenue requirements by spreading the replacement costs of a depreciated asset over the expected life of the asset.

Based on the revenue requirement analysis, the utility can determine the overall level of rate adjustment needed in order for the utility to meet its overall expenditure needs.

## Financial Planning

In the development of the revenue requirements, many assumptions are utilized to project future expenditures, customer and consumption growth, and necessary revenue adjustments. The City's budget documents are used as the initial starting point; however, assumptions play a necessary role in projecting future required revenue.

Conservative growth assumptions and prudent financial planning are fundamental to ensuring adequate rate revenue to promote financial stability. The financial model developed by the consulting team appropriately considers the City's existing debt service coverage ratios and operating reserve balances. In addition, it is recommended that the City begin recognizing some of the cost associated with depreciation to allow the accumulation of a reserve for repair and replacement of depreciated items. This enables the City to mitigate future rate increases as money for repair and replacement is collected automatically each year.

## Rate Design

The final element, the rate design process, applies the results from the revenue requirements to develop rates that achieve the general guidelines and objectives of the City. These objectives may include consideration of cost-based rates, but may also consider items such as ability to pay, continuity of past rate philosophy, conservation, encouragement of economic development, ease of administration, and legal requirements. While cost-based rates are an important objective, all objectives should be balanced appropriately.

While the general description of the utility rate setting process discussed in this section of the report is simplified and condensed, it does address the underlying fundamentals. One of the key principles for a comprehensive rate study is found in economic theory, which suggests the price of a commodity must roughly equal its cost if equity among customers is to be maintained – i.e. cost-based. For example, capacity-related costs are usually incurred by a water utility to meet peak use requirements. Consequently, the customers causing peak demands should properly pay for the demand-related facilities in proportion to their contribution to maximum demands. Through refinement of costing and pricing techniques, consumers of a product are given a more accurate price signal of what the commodity costs to produce and deliver.

The above fundamentals have considerable foundation in economic literature. They also serve as primary guidelines for rate design by most utility regulators and administrative agencies. This "price-equals-cost" theory provides the basis for much of the subsequent analysis and comment. This theory is particularly important, as the proposed rate, structure has been modified to encourage conservation, while maintaining this economic principle.

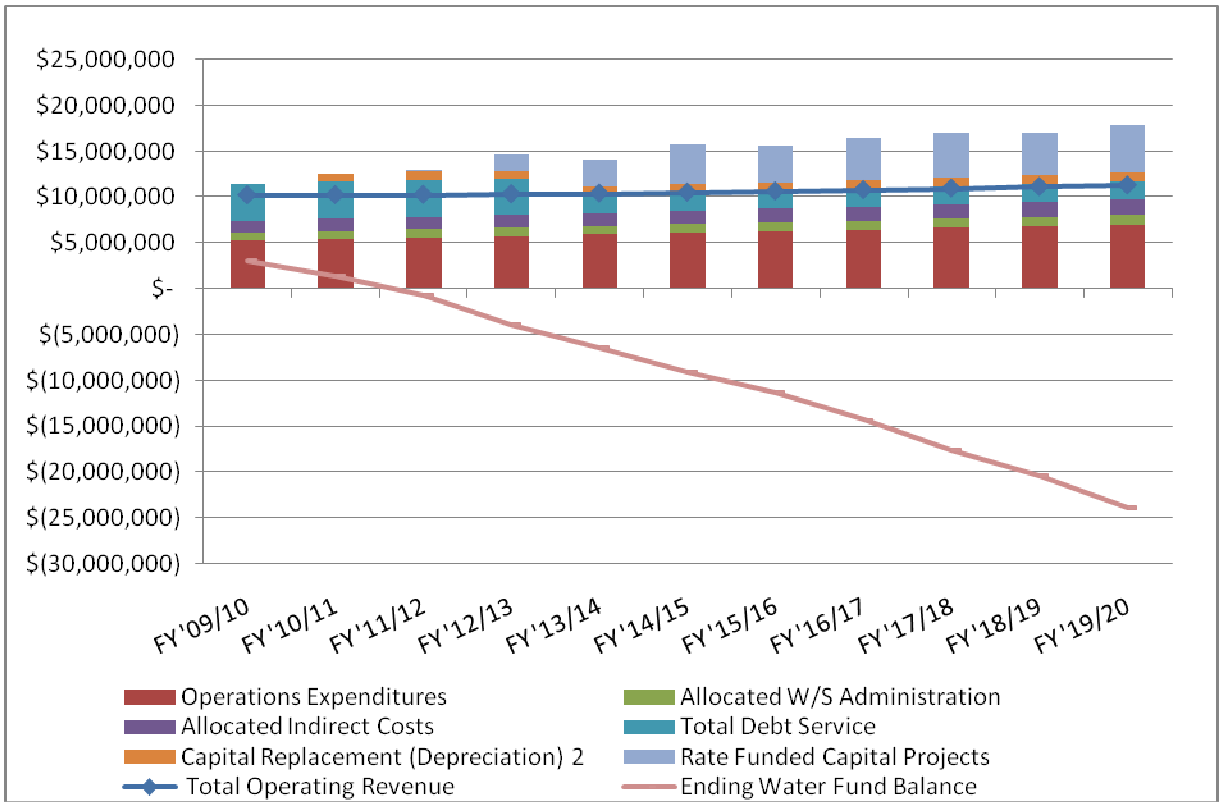
## Rate Setting Principles Summary

This section of the report has provided a brief introduction to the general principles, techniques, and economic theory used to set utility rates. These principles, techniques, and economic theory were the starting point for this rate study and the groundwork used to meet the City's key objectives in analyzing and adjusting their utility rates.

# Water Rate Analysis

The City is facing several challenges to continuing its high-quality operations. Utility revenues are not keeping pace with increasing operational and capital costs. Customer account growth has slowed to less than a 0.5% rate. A prolonged drought has necessitated a pressing need to procure additional water supply through drilling of new wells. Utility infrastructure is aging and must be replaced soon. In fact, during this study, six water mains broke resulting in large losses of water and other costs. The debt burden of the utilities, particular the water system, is high compared to its other expenditures. Considering the above variables, Figure 3-1 projects the adequacy of existing rate revenue to support ongoing operations and maintenance.

Figure 3-1: Revenue and Expenditure Projections – Existing Rates




As the above figure indicates, revenue increases are necessary to operate and maintain the water system. This will be evident as details of the process, data, and methodology utilized in the rate study are presented in this section of the report. Summary figures, outlining much of the analysis are included in this section of the report as well. Technical figures, which provide a greater level of detail and breadth, are provided in the Technical Appendix of this report.

## Customer Statistics

During the Fiscal Year 2008, the City provided water service to an estimated 19,226 customers, distributing roughly 2.5 billion gallons (~7,650 acre feet) of potable water. Figure 3-2 shows usage and number of accounts by customer class as billed by the City.

Figure 3-2: Accounts and Consumption

| Description | Class | Accounts | Actual Consumption (gal) [1] |
|---|---|---|---|
| Single Family: Sewer-Winter Quarter Ave | R1 | 14,055 | 889,393,512 |
| Single Family: Sewer-Meter Related | R4 | 15 | 635,200 |
| Commercial/Schools | C | 1,618 | 631,975,404 |
| Lawn Meters | LM | 252 | 85,369,351 |
| Manufacturing | MN | 42 | 103,915,849 |
| Northern Arizona University | NA | 7 | 227,781,430 |
| Multi-Family Units: Sewer-Winter Quarter Ave | R2 | 2,379 | 316,582,055 |
| Multi-Family: Sewer-Meter Related | R3 | 593 | 213,732,734 |
| Standpipes | SP | 5 | 27,386,565 |
| Total | | 18,966 | 2,496,772,100 |
| Total Consumption (af) | | | 7,662 |

1. Consumption period of March 2008 through February 2009.

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

A projection of customers, usage, and production requirements is necessary in the evaluation of the revenue requirements. This projection is critical for the determination of revenues from rates, escalation of production-related costs, and design of the rates.

Given the current economic climate and review of potential growth, in discussions with the consulting team, City staff determined to use a conservative growth rate starting at 0.2% (38 new accounts) in Fiscal Year 2010 rising slowly to a high of 1.6% (336 new accounts) in Fiscal Year 2020.

# Revenue Requirements Analysis

## Revenue from Existing Rates

The first step in developing the revenue requirements is to develop a projection of revenues from existing rates. The City expects to receive approximately $10 million in water sales in Fiscal Year 2010. By 2020, assuming the growth discussed above, water sales are projected to increase roughly 10% to $11 million. In addition to water sales, the City has average non-operating revenue estimated at a

quarter million dollars, consisting of interest income and water resource fee. Also included is a onetime secondary property tax transfer.

## Projections of Operation and Maintenance Expenses

To project Operating and Maintenance (O&M) expenses over the ten-year planning horizon, two escalation factors were developed. The operations cost escalator, set at 2.75%, is applied to basic expenditures that the Department incurs: labor, benefits, materials, utilities, etc. The depreciation expense escalator, set at 2.0%, helps the City maintain appropriate recovery levels for depreciated facilities and other assets. Additionally, the City, as part of its financial policies, has established a reserve policy to provide 10% (37 days) of its annual operating and maintenance expenses in a reserve account.

## Debt Service

Debt service is the Department's annual principal and interest obligations when projects are financed via long-term debt. The City currently has nine water obligations: two (2) General Obligation bonds and seven (7) Water Infrastructure Finance Authority (WIFA) loans. The current annual debt service payments total nearly $4 million reducing to approximately $2 million after Fiscal Year 2013. Figure 3-3 provides a summary of the City's water related debt service.

Figure 3-3: Existing Debt Service

**Existing Debt**

| | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 |
|---|---|---|---|---|---|---|
| **Water Debt Financing** | | | | | | |
| G.O. Bonds 1997 | $ 77,878 | $ 77,878 | $ 77,878 | $ 1,757,878 | $ - | $ - |
| G.O. Series 2003 Refunding | 1,958,177 | 1,990,653 | 2,030,203 | 196,503 | - | - |
| WIFA - Red Gap | 538,288 | 543,120 | 542,460 | 541,472 | 540,156 | 538,512 |
| WIFA Series 2009 (#720011-10) | 50,844 | 56,289 | 56,289 | 56,289 | 56,289 | 56,289 |
| WIFA Series 2009 (#920173-10) | 63,556 | 70,361 | 70,361 | 70,361 | 70,361 | 70,361 |
| WIFA Series 2009 | 50,844 | 56,289 | 56,289 | 56,289 | 56,289 | 56,289 |
| WIFA Series 2003 | 478,800 | 478,800 | 478,800 | 478,811 | 478,801 | 478,801 |
| WIFA Series 2008 Water Wells | 617,441 | 617,441 | 617,441 | 617,441 | 617,441 | 617,441 |
| WIFA Series 2008 Red Gap Pipeline | 163,648 | 163,648 | 163,648 | 163,648 | 163,648 | 163,648 |
| Total Water Debt Requirements | $ 3,999,476 | $ 4,054,479 | $ 4,093,369 | $ 3,938,692 | $ 1,982,985 | $ 1,981,341 |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

## Capital Improvement Projects

The Department's capital improvements projects (CIPs) needs for the water utility are summarized in Figure 3-4. Individually, each project was identified by City staff as growth-related, existing needs (O&M) or a percentage of both to determine the appropriate funding mechanism (monthly rates or connection fee). The capital projects are required to meet the utilities projected growth and to maintain the existing quality of the system.

Figure 3-4: Water Capital Projects by Funding Source

| Description | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 |
|---|---|---|---|---|---|---|
| Rate Funded Capital Projects | $ - | $ - | $ 225,000 | $ 1,845,000 | $ 2,960,000 | $ 4,400,000 |
| Fee Funded Capital Projects (Growth) | - | - | 500,000 | 1,405,000 | 530,000 | 200,000 |
| **Total Rate and Fee Funded Project Costs** | **$ -** | **$ -** | **$ 725,000** | **$ 3,250,000** | **$ 3,490,000** | **$ 4,600,000** |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

## Summary of Revenue Requirements Analysis

The above components comprise the foundation of the revenue requirement analysis. Given the current economic climate, the consulting team facilitated several meetings with City staff and committee members to assure the accuracy of financial and growth variables in developing the revenue requirement analysis. Particular emphasis was placed on attempting to minimize rates, yet still encompass adequate funds to support the operational activities and capital projects throughout the study period.

The revenue requirements analysis figure, presented below, provides a basis for evaluating the timing and level of water revenue increases required to meet the projected required revenue for the study period. The percentages shown at the bottom of the figure show the recommended revenue adjustments.

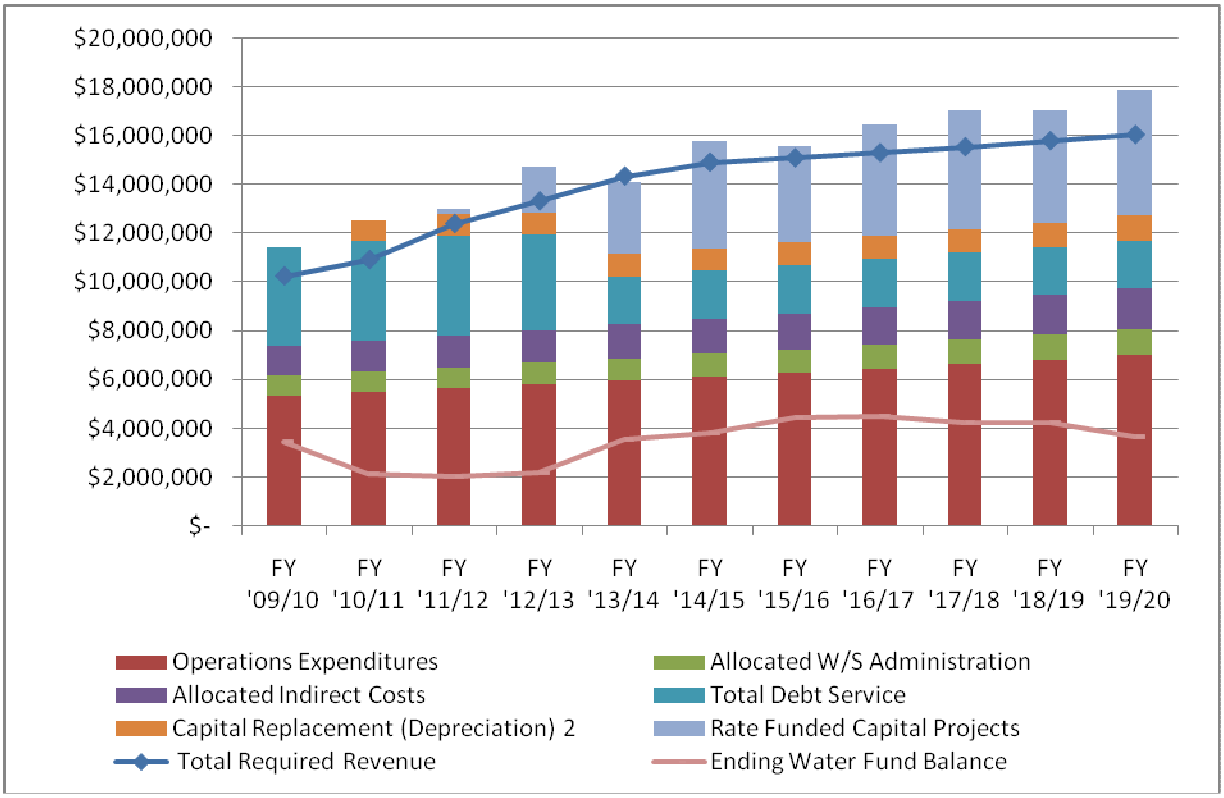
Figure 3-5: Revenue Requirements

| Description | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| Total Revenues (before increase) | $ 11,812,201 | $ 10,550,184 | $ 10,606,466 | $ 10,635,320 | $ 10,694,313 | $ 10,813,471 |
| Additional Water Sales (increase) | - | 646,777 | 2,088,953 | 2,952,101 | 3,893,157 | 4,357,007 |
| **Total Revenues** | **$ 11,812,201** | **$ 11,196,960** | **$ 12,695,418** | **$ 13,587,421** | **$ 14,587,470** | **$ 15,170,478** |
| **Expenses** | | | | | | |
| Operating Expenses | $ 7,425,459 | $ 7,629,659 | $ 7,839,475 | $ 8,055,060 | $ 8,276,574 | $ 8,504,180 |
| Annual Debt Service | 3,999,476 | 4,054,479 | 4,093,369 | 3,938,692 | 1,982,985 | 1,981,341 |
| Capital Replacement | - | 854,688 | 871,782 | 889,218 | 907,002 | 925,142 |
| Capital Replacement (Incurred) | - | - | (225,000) | (1,301,470) | (889,218) | (907,002) |
| Rate Funded Capital Projects | - | - | 225,000 | 1,845,000 | 2,960,000 | 4,400,000 |
| **Total Expenses** | **$ 11,424,935** | **$ 12,538,826** | **$ 12,804,626** | **$ 13,426,500** | **$ 13,237,344** | **$ 14,903,661** |
| **Net Income (Loss)** | **$ 387,266** | **$ (1,341,866)** | **$ (109,207)** | **$ 160,921** | **$ 1,350,127** | **$ 266,816** |
| Ending Water Fund Balance | 3,453,975 | 2,112,109 | 2,002,902 | 2,163,823 | 3,513,950 | 3,780,766 |
| Ending Water CR Fund Balance | - | 854,688 | 1,501,470 | 1,089,218 | 1,107,002 | 1,125,142 |
| **Additional Revenue Increase** | **0.0%** | **13.0%** | **7.0%** | **7.0%** | **7.0%** | **3.0%** |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

Based upon the revenue requirement analysis, the City will need to adjust the rates to increase revenue by 13% in the first year, following smaller revenue increase in subsequent years. This approach will result in a 43% revenue increase over the next five years. Figure 3-6 expands upon the earlier figure (Figure 3-1), to illustrate the positive impact of the revenue increase on the utility's financial condition.

Figure 3-6: Revenue and Expenditure Projections – Proposed Rates




## Cost of Service Analysis

The cost of service analysis is a systematic process by which revenue requirements are used to generate a classification of fair and equitable costs in proportion to the service received for each user class.

### Cost Allocation by Function

The cost of service allocation conducted in this study is established on the base-extra capacity method endorsed by the AWWA. Under the base-extra capacity method, revenue requirements are allocated to the different user classes proportionate to their use on the water system. Allocations are based on average day (base) usage, maximum day (peak) usage, meters and services, billing and collection, and fire protection. Use of this methodology results in an AWWA-accepted cost distribution among customer classes and a means of calculating and designing rates to proportionately recover those costs.

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Figure 3-7 presents the net plant in service analysis. This analysis is important in order to determine an appropriate and reasonable means of allocating debt service requirements and future capital projects to utility demand as well as customer and fire protection needs.

## Figure 3-7: Functionalization of Net Plant Investment

| Description | Plant Investment | Base Water Demand | Max Day (Peak) Water Demand | Customer Accounts | Meters & Services | Fire Protection | Basis of Classification |
|---|---|---|---|---|---|---|---|
| Land/Water Rights | $ 8,823,439 | $ 5,179,686 | $ 3,643,753 | $ - | $ - | $ - | 58.7% Base 41.3% Peak |
| Supply | 41,993,764 | 24,651,899 | 17,341,865 | - | - | - | 58.7% Base 41.3% Peak |
| Treatment | 14,250,856 | 8,365,781 | 5,885,074 | - | - | - | 58.7% Base 41.3% Peak |
| Pumping | 7,189,228 | 4,220,344 | 2,968,884 | - | - | - | 58.7% Base 41.3% Peak |
| Transmission Lines | 46,562,416 | - | 32,593,691 | 4,656,242 | - | 9,312,483 | 70% Peak 10% Cust 20% FP |
| Distribution Lines | 42,240,431 | - | 29,568,302 | 4,224,043 | - | 8,448,086 | 70% Peak 10% Cust 20% FP |
| Meters | 3,895,840 | - | - | - | 3,895,840 | - | 100% Meters & Services |
| Hydrants | 6,513,372 | - | - | - | - | 6,513,372 | 100% Fire Protection |
| Treated Water Storage | 62,532 | 36,708 | 25,823 | - | - | - | 58.7% Base 41.3% Peak |
| General Plant | 8,841,600 | 2,162,709 | 5,131,644 | 515,749 | - | 1,031,498 | As % of S, T, P, T & D |
| Total Plant in Service | $ 180,373,478 | $ 44,617,128 | $ 97,159,037 | $ 9,396,034 | $ 3,895,840 | $ 25,305,439 | |
| Less Contributed Plant | (31,155,184) | (7,706,537) | (16,781,889) | (1,622,939) | (672,913) | (4,370,907) | As % of Total Plant |
| Net Plant Investment | $ 149,218,294 | $ 36,910,591 | $ 80,377,148 | $ 7,773,095 | $ 3,222,927 | $ 20,934,533 | |
| % of Net Plant in Service | | 24.7% | 53.9% | 5.2% | 2.2% | 14.0% | |

1. Supply, Treatment, Pumping, Transmission & Distribution.

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

The resulting net plant allocations were applied to the current system cost of service analysis depicted in Figure 3-8. This figure classifies the major functions of the water system and allocates those related costs to the demand factors average day (base), maximum day (peak) usage, meters and services, billing and collection, fire protection, and energy costs.

## Figure 3-8: Classification of Water Expenses by Function

| Description | Total Water Expenses | Base Water Demand | Max Day (Peak) Water Demand | Customer Accounts | Meters & Services | Fire Protection | Energy Costs | Basis of Classification |
|---|---|---|---|---|---|---|---|---|
| **Source of Supply** | | | | | | | | |
| Wells | $ 649,512 | $ 381,288 | $ 268,224 | $ - | $ - | $ - | $ 1,269,198 | 58.7% Base 41.3% Peak |
| Other Supply Expense | 124,720 | 73,215 | 51,505 | - | - | - | 260 | 58.7% Base 41.3% Peak |
| Total Source of Supply Expense | $ 774,232 | $ 454,503 | $ 319,729 | $ - | $ - | $ - | $ 1,269,458 | |
| **Water Treatment** | | | | | | | | |
| Operations Expense - Treatment | $ 585,592 | $ 343,764 | $ 241,828 | $ - | $ - | $ - | $ 530,242 | 58.7% Base 41.3% Peak |
| Maintenance Expense | 225,846 | 132,580 | 93,266 | - | - | - | - | 58.7% Base 41.3% Peak |
| Chemicals | 233,248 | 233,248 | - | - | - | - | - | 100% Base |
| Other Treatment Expense | 110,375 | 110,375 | - | - | - | - | - | Assumed 100% Base |
| Total Water Treatment Expense | $ 1,155,061 | $ 819,967 | $ 335,094 | $ - | $ - | $ - | $ 530,242 | |
| **Water Distribution** | | | | | | | | |
| Reservoirs | $ 35,674 | $ 20,942 | $ 14,732 | $ - | $ - | $ - | $ 30,500 | 58.7% Base 41.3% Peak |
| Operations - Pumping | 1,900 | 1,115 | 785 | - | - | - | 32,450 | 58.7% Base 41.3% Peak |
| Operations Expense - Distribution | 402,142 | 236,072 | 166,070 | - | - | - | 5,200 | 58.7% Base 41.3% Peak |
| Maintenance - Mains | 349,749 | 205,316 | 144,433 | - | - | - | - | 58.7% Base 41.3% Peak |
| Maintenance - Meters | 89,468 | - | - | - | 89,468 | - | - | 100% Meters & Services |
| Maintenance - Hydrants | 177,724 | - | - | - | - | 177,724 | - | 100% Fire Protection |
| Installation - Meters | 363,707 | - | - | - | 363,707 | - | - | 100% Meters & Services |
| Other Distribution Expense | 36,431 | 36,431 | - | - | - | - | 1,500 | Assumed 100% Base |
| Total Water Distribution Expense | $ 1,456,795 | $ 499,876 | $ 326,020 | $ - | $ 453,175 | $ 177,724 | $ 69,650 | |
| **General & Administrative** | | | | | | | | |
| Water Conservation | $ 282,072 | $ - | $ - | $ 282,072 | $ - | $ - | $ - | 100% Customer Accounts |
| Misc General Expense | 11,621 | 5,811 | - | 2,324 | 2,324 | 1,162 | - | Base, CA, M&S, FP (50/20/20/10) |
| Allocated WS Administration | 818,665 | 409,332 | - | 163,733 | 163,733 | 81,866 | - | Base, CA, M&S, FP (50/20/20/10) |
| Allocated Indirect Costs | 1,255,663 | 627,832 | - | 251,133 | 251,133 | 125,566 | - | Base, CA, M&S, FP (50/20/20/10) |
| Total G&A Expense | $ 2,368,021 | $ 1,042,974 | $ - | $ 699,262 | $ 417,190 | $ 208,595 | $ - | |
| **Capital Requirements** | | | | | | | | |
| Capital Replacement | $ 850,782 | $ 210,449 | $ 458,278 | $ 44,319 | $ 18,376 | $ 119,360 | $ - | As Net Plant in Service |
| Rate Fund Capital Projects | 2,957,033 | 731,451 | 1,592,820 | 154,038 | 63,868 | 414,856 | - | As Net Plant in Service |
| Debt Service | 2,596,914 | 642,372 | 1,398,840 | 135,279 | 56,090 | 364,333 | - | As Net Plant in Service |
| Total Capital Requirements Expens | $ 6,404,728 | $ 1,584,271 | $ 3,449,937 | $ 333,636 | $ 138,334 | $ 898,549 | $ - | |
| **TOTAL FUNCTIONALIZED COSTS** | **$ 12,158,837** | **$ 4,401,592** | **$ 4,430,780** | **$ 1,032,898** | **$ 1,008,699** | **$ 1,284,868** | **$ 1,869,350** | |
| **FUNCTIONALIZATION FACTOR** | **100.0%** | **31.4%** | **31.6%** | **7.4%** | **7.2%** | **9.2%** | **13.3%** | |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

The resulting functionalization factors that appear at the bottom of Figure 3-8 are utilized to allocate system operating and capital costs to each customer class based on the each class' demand on the system. The energy costs column has been included in this cost analysis to reflect the additional expenses recovered by the creation an Water Energy Cost.

## Rate Design Balance

There is some flexibility in the design of the rate structure to meet the City's pricing objectives while being consistent with cost of service principles. There are positives and negatives associated with the decrease in fixed revenue. Typically, a larger percentage of fixed rate revenue results in greater revenue stability since a greater percentage of total revenues are not influenced by fluctuations in consumption due to the weather. At the same time, the decrease in fixed revenue will improve equitability concerning cost recovery and the impact of conservation measures while reducing revenue stability, as users have greater control over their consumption and ultimately their bill. The fixed portion of the proposed water rates generates an estimated 24% of total rate revenue

## Rate Design Analysis

The final step of the rate study is the design of the water rates to collect the desired level of revenue determined in the revenue requirement analysis. During this analysis, consideration is given to both the level of rates and the structure of the rates. This section reviews the proposed water rate design for the City.

### Criteria and Considerations

In determining the appropriate rate level and structure, the consulting team, in conjunction with City staff and the City's Water Commission, analyzed various generated financial scenarios concerning the proposed adjustments and the implications attributed to those decisions.

A simplified list of some of the design considerations that were reviewed is listed:

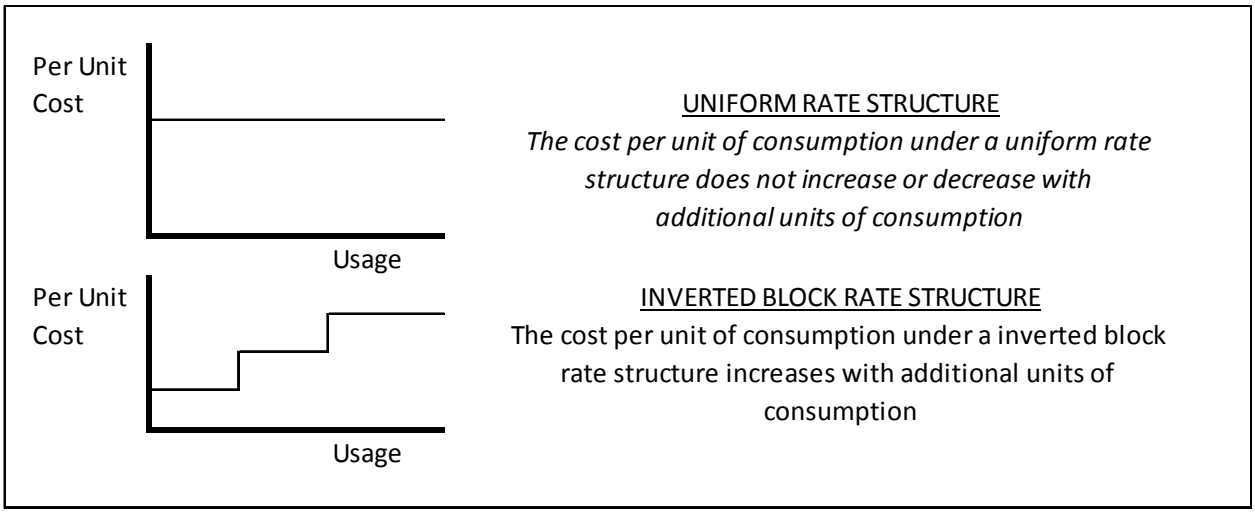
- Consideration of the customer's ability to pay
- Clear and understandable rates
- Easily administered
- Conservation measures
- Revenue stability (month to month and year to year)
- Efficient allocation of resources
- Implementation of Capital Improvements (rate of improving the existing system)
- Fair and equitable (cost-based) rates
- Water Energy Cost

Every consideration has merit and plays an important role in a comprehensive rate study. When developing the City's proposed rates all of the aforementioned criteria were taken into consideration. Determining the appropriate balance is crucial, as some of the criteria sometime conflict with one another, i.e. the customers ability to pay and cost-based. In designing rates, there will always be concessions between the various objectives; however, we attempt to ensure the proposed rates meet all of the leading objectives of the City.

## Overview of Existing Rate Structure

The City has two rate structures currently implemented: increasing block rate and uniform rate. While each rate structure is similar by having a fixed monthly charge, how the structures charge for consumption is different. Figure 3-9 provides an overview of the two rate structures.

Figure 3-9: Rate Structure Overview




The Single Family Residential (SFR) water rate structure, shown in Figure 3-10 currently employs an inverted block rate structure that is the (variable) cost per unit of consumption increases with additional units of consumption. The City's existing structure consists of three blocks of consumption levels at which the unit price increases. These blocks may also be referred to as tiers. Under a uniform rate structure, the cost per unit of consumption does not increase or decrease with additional units of consumption. This uniform pricing method currently applies to Multi-Family, Commercial, Lawn Meters, Manufacturing, Northern Arizona University, and Standpipes, as outlined in Figure 3-11. All customer classes are charged a fixed monthly fee as shown in Figure 3-12.

Figure 3-10: Existing Single Family Rate Structure

| Description | Gallon | Existing |
|---|---|---|
| Tier 1 | 0 - 5,000 | 3.02 |
| Tier 2 | 5,001 - 15,000 | 3.54 |
| Tier 3 | 15,001 - 25,000 | 5.03 |
| Tier 4 | > 25,001 | 8.77 |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

Figure 3-11: Existing Non-Single-Family Residential Rate Structure

| Description | Current |
|---|---|
| Multi-Family Residential | 2.88 |
| Commercial/Schools | 3.17 |
| Lawn Meters | 3.02 |
| Manufacturing | 2.88 |
| Northern Arizona University | 2.80 |
| Standpipes | 5.60 |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

Figure 3-12: Existing Fixed Charge

| Meter Size | Charge |
|---|---|
| 3/4" | $ 6.48 |
| 1" | 8.02 |
| 1 1/2" | 9.62 |
| 2" | 14.00 |
| 3" | 41.80 |
| 4" | 58.00 |
| 6" | 89.80 |
| 8" | 124.00 |
| 10" | 168.80 |

Sources: City of Flagstaff;
Willdan Financial Services, TischlerBise.

## Proposed Rate Adjustments

### *Water Energy Cost*

In Fiscal Year 2009 the City's cost base had been significantly inflated by high energy costs which may continue to rise for some time. City staff asked the consulting team to introduce a rate structure, distinct from a normal bundled cost, where the City could separate out the energy element of the water rates that is directly related to fuel and energy prices.

In Fiscal Year 2009 the energy component of the Utilities operating expenses came to 3.49 million dollars. Approximately 33% of the Utilities annual operating budget is due to power and energy costs. At a time when energy costs are rising faster than the City's rates can be adjusted the consulting team proposes to separate out the energy component of the rate structure and list it as an Water Energy Cost. This surcharge would pay for energy and power related operating expenses that are subject to

annual variations. This type of operating expense needs periodic reevaluation without the need of a general rate case.

This Commission continues to be supportive of the City's investments in energy conservation and sustainability efforts. By separating out the energy component of the rates, the City can better monitor, measure and adjust its costs related to energy and power. In addition, if the City chooses to pursue renewable energy sources for Utility operations, any cost savings may be reflected in the Water Energy Cost fund. The Commission recognizes that exploring renewable energy sources and prudent conservation continues to make sense from both a societal and economic prospective

Figure 3-13 details the methodology used to generate the Water Energy Cost. To calculate the Water Energy Cost divide all of the water related energy costs by the total consumption. The City update the surcharge annually based on a one-year rolling average of water related energy costs.

Figure 3-13: Water Energy Cost

| | | |
|---|---|---|
| Total Energy Cost* | $ | 1,869,350 |
| Total Consumption (Tg) | | 2,496,772 |
| Cost per Tg | $ | 0.75 |

* Based on 2009 Budget Figures

### *Conservation*

In addition to a cost-based approach, a secondary objective of the City is to encourage water conservation through design and implementation of the new rate and structure. Beyond the revenue adjustments established in the required revenue analysis and the allocation of cost determined in the cost of service analysis, the consulting team and the City discussed changes to the number of and consumption levels of the blocks (tiers). Figure 3-14 illustrates SFR consumption by percentile. Percentiles are shown for winter, summer, and annual average to provide an understanding of the seasonal consumption patterns.

Figure 3-14: Consumption by Percentile

| Percentile | Winter | Summer | Average |
|---|---|---|---|
| 10% | 1.28 | 2.12 | 2.02 |
| 20% | 2.02 | 3.19 | 2.87 |
| 25% | 2.34 | 3.67 | 3.23 |
| 30% | 2.65 | 4.16 | 3.55 |
| 40% | 3.25 | 5.20 | 4.23 |
| 50% | 3.82 | 6.44 | 4.92 |
| 60% | 4.45 | 8.01 | 5.68 |
| 70% | 5.15 | 10.26 | 6.64 |
| 75% | 5.56 | 11.74 | 7.29 |
| 80% | 6.09 | 13.38 | 7.98 |
| 90% | 7.88 | 18.87 | 10.23 |
| 95% | 9.81 | 24.80 | 12.59 |
| 98% | 12.92 | 33.05 | 15.74 |
| 100% | 648.51 | 164.40 | 89.71 |

* Percentiles calculated from average monthly consumption and are presented in 1,000 gallons.

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

Figure 3-14 also illustrates that the existing blocks are not currently set at appropriate levels to encourage a residential customers to reduce consumption. The City's existing consumption blocks, most notably Tiers 3 and 4, see very limited application. For example, in summer, more than 80% of SFR accounts fall within Tier 2. Figure 3-15, below, outlines the proposed changes to the block design.

Figure 3-15: Residential Tier Changes

| Description | Existing (gal) | Proposed (gal) |
|---|---|---|
| Tier 1 | 0 - 5,000 | 0 - 3,700 |
| Tier 2 | 5,001 - 15,000 | 3,701 - 6,400 |
| Tier 3 | 15,001 - 25,000 | 6,401- 11,700 |
| Tier 4 | > 25,001 | > 11,701 |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

The proposed consumption blocks, tiers, enable the City to encourage conservation, while reducing the burden on those already conserving. By matching the consumption blocks to consumption levels, The City should be able to achieve their conservation goals.

### *Fixed Charge (Monthly Fee)*

When the City last reviewed the water utility rates, the fixed monthly charge was not increased. As a result, a majority of the revenue increase will be captured in the monthly fixed charge.

### *Summary of Water Rate Study*

Throughout the process of the water rate study, many renditions and scenarios were considered. Presented below is the culmination of numerous analyses and discussions. Figure 3-16 recaps the proposed monthly base charge rate and Figure 3-17 summarizes the variable charges by customer class as designed in this study.

Figure 3-16: Monthly Service/Standby Fixed Charge

| Description | Current | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 |
|---|---|---|---|---|---|---|
| **All Customer Classes (except Private Fire)** | | | | | | |
| **Meter Size** | **Monthly Base Charge by Meter** | | | | | |
| 3/4" | $ 6.48 | $ 10.02 | $ 11.38 | $ 12.18 | $ 13.03 | $ 13.42 |
| 1" | 8.02 | 11.80 | 13.40 | 14.34 | 15.34 | 15.80 |
| 1 1/2" | 9.62 | 16.25 | 18.45 | 19.74 | 21.12 | 21.75 |
| 2" | 14.00 | 21.58 | 24.50 | 26.22 | 28.06 | 28.90 |
| 3" | 41.80 | 34.03 | 38.64 | 41.34 | 44.24 | 45.57 |
| 4" | 58.00 | 51.82 | 58.83 | 62.95 | 67.36 | 69.38 |
| 6" | 89.80 | 96.28 | 109.31 | 116.96 | 125.15 | 128.91 |
| 8" | 124.00 | 149.64 | 169.89 | 181.78 | 194.51 | 200.34 |
| 10" | 168.80 | 211.89 | 240.56 | 257.40 | 275.42 | 283.68 |
| **Private Fire Connections** | | | | | | |
| **Connection Size** | **Monthly Private Fire Protection Charge** | | | | | |
| 4" | $ 22.68 | $ 9.41 | $ 10.68 | $ 11.43 | $ 12.23 | $ 12.59 |
| 6" | 44.23 | 27.33 | 31.02 | 33.19 | 35.52 | 36.58 |
| 8" | 70.32 | 58.23 | 66.11 | 70.74 | 75.69 | 77.96 |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

Figure 3-17: Proposed Commodity Charges

| Description | Current* | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 |
|---|---|---|---|---|---|---|
| **Single Family Residential** | | | | | | |
| Tier 1 (0 - 3,700 gal) | 3.02 | 2.07 | 2.34 | 2.51 | 2.68 | 2.77 |
| Tier 2 (3,700 - 6,400 gal) | 3.54 | 2.69 | 3.05 | 3.26 | 3.49 | 3.59 |
| Tier 3 (6,400 - 11,700 gal) | 5.03 | 4.13 | 4.69 | 5.02 | 5.37 | 5.53 |
| Tier 4 (11,701+ gal) | 8.77 | 8.26 | 9.38 | 10.04 | 10.74 | 11.06 |
| Multi-Family Residential | 2.37 | 2.66 | 3.02 | 3.23 | 3.45 | 3.56 |
| Commercial/Schools | 3.17 | 2.83 | 3.21 | 3.43 | 3.67 | 3.78 |
| Lawn Meters [1] | 3.02 | 2.83 | 3.21 | 3.43 | 3.67 | 3.78 |
| Manufacturing | 2.88 | 2.78 | 3.16 | 3.38 | 3.62 | 3.73 |
| Northern Arizona University | 2.80 | 2.73 | 2.95 | 3.15 | 3.37 | 3.47 |
| Standpipes | 5.60 | 4.88 | 5.07 | 5.34 | 5.63 | 5.78 |
| **Water Energy Cost [2]** | - | 0.75 | | | | |

*Current Tier Structure: 0-5,000, 5,001-15,000, 15,001-25,000, & Over 25,001 gallons

[1] Lawn Meters are now tied to the Commercial/Schools rate, rather than the Single Family rate

[2] Water Energy Cost, per unit, applied to all customer classes.
Cost to be calculated annually based on a one-year rolling average of water related energy costs.

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

### *Impact of Revenue Increase*

In Fiscal Year 2011, the proposed 13% increase in required revenue does not directly correlate to a 13% increase in rates. The cost of service analysis and, in Single Family Residential's case, the restructuring of the consumption blocks dictate the actual adjustments to the rates.

Figure 3-18 details a comparison of the City's existing rates with the proposed single-family rates (rate increase effective January 2011). Average usage for SFR is 5,000 gallons – fifty percent (50%) of billed customers consume less than 5,000 gallons. If an "average family" of four were assumed, generally, consumption would fall between 7,500 and 10,000 gallons a month. As revealed in the comparison, those who burden the system the greatest, over 10,000 gallons, see a sharp increase in their monthly bill. Those who reduce, or already consume an average amount, will see their bills relatively unchanged.

Figure 3-18: Comparative Water Bills - SFR

| Monthly Consumption (gal) | Current Monthly Bill | Proposed 2011 Rate Monthly Bill* | $ Difference from Current Rates |
|---|---|---|---|
| 3,500 | 17.05 | 19.87 | 2.82 |
| 5,000 | 21.58 | 24.90 | 3.32 |
| 7,500 | 30.43 | 35.07 | 4.64 |
| 10,000 | 39.28 | 47.27 | 7.99 |
| 15,000 | 56.98 | 85.30 | 28.32 |
| 20,000 | 82.13 | 130.35 | 48.22 |
| 25,000 | 107.28 | 175.41 | 68.13 |
| 30,000 | 151.13 | 220.46 | 69.33 |

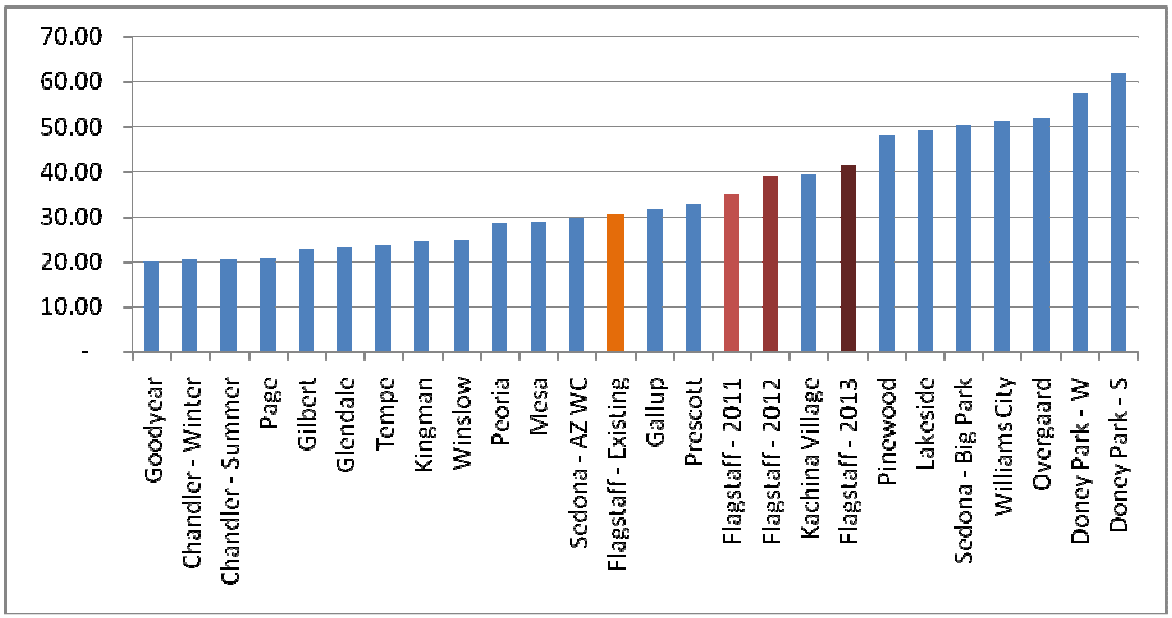
* Includes Energy Surcharge

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

### *Rate Comparison*

While the cost structure and facilities vary greatly between Water Utilities, rate comparisons provide the City a barometer of its rates in relation to surrounding communities. The figure compares the estimated monthly bill for 7,500 gallon of consumption. The proposed rates (2011, 2012, and 2013) use the 2011 Water Energy Cost.

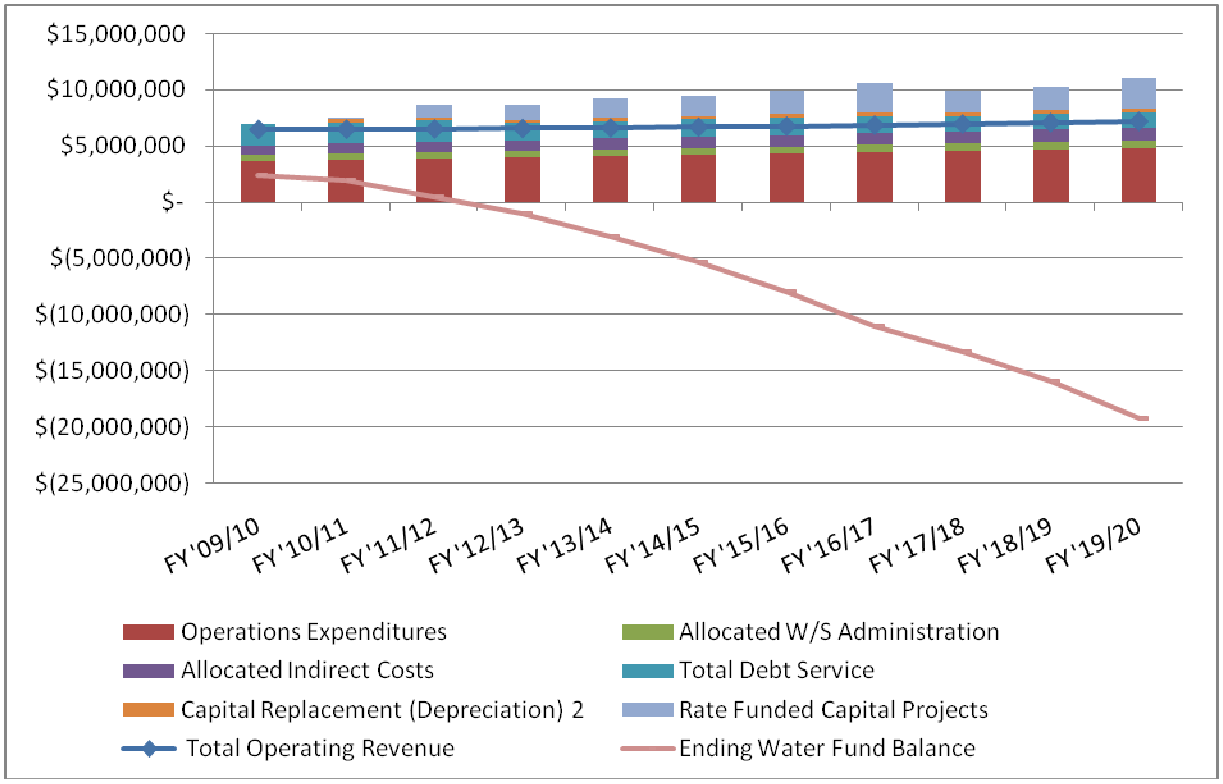
Figure 3-19: SFR Rate Comparison –7,500 gallons



# Wastewater Rate Analysis

Wastewater is in a similar position when compared to the City's water utility. Wastewater is facing increased costs related to operations and an increasing need to repair and replace existing infrastructure. Figure 4-1, below, projects the adequacy of existing rate revenue.

Figure 4-1: Revenue and Expenditure Projections – Existing Rates




As the above figure indicates, revenue increases are necessary to operate and maintain the wastewater system. The bars in the figure represent total expenditures of the wastewater system, whereas the lines represent the utility's fund balance and operating revenue. This graph shows the read that the utility is not covering its cost resulting in reserve fund depletion. The reserve is shown to turn negative in Fiscal year 2012. Details of the process, data, and methodology utilized in the rate study are presented in this section of the report. Summary figures, outlining much of the analysis are included in this section of the report as well, while technical figures, which provide a greater level of detail and breadth, are provided in the Technical Appendix.

## Customer Statistics

During the Fiscal Year 2008, it is estimated that the City provided wastewater service to an estimated 17,352 customers, discharging roughly 2.1 billion gallons of wastewater. Figure 4-2 shows usage and number of accounts by customer class as billed by the City.

Figure 4-2: Accounts and Consumption (2009)

| Description | Class | Accounts | Estimated Sewer Flow (1,000 gal) |
|---|---|---|---|
| Residential | | | |
| Single- and Multi-Family | R1 - R4 | 15,879 | 1,242,245 |
| Non-Residential | | | |
| Car Washes | CW | 12 | 15,881 |
| Laundromats | L | 4 | 19,375 |
| Commercial | C | 1,192 | 294,822 |
| Hotels & Motels | H | 99 | 195,386 |
| Restaurants | RF | 123 | 78,828 |
| Industrial Laundries | IL | 1 | 19,740 |
| Manufacturing | MN | 32 | 107,928 |
| Pet Food Manufacturers | PF | 1 | 6,453 |
| Soft Drink Bottling | SD | 2 | 4,736 |
| Ice Cream Cone Mfg | IC | 1 | 1,157 |
| Northern Arizona University | NA | 6 | 156,769 |
| Total | | 17,352 | 2,143,319 |
| Total Consumption (af) | | 17,617 | |

1. Consumption period of March 2008 through February 2009.

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

A projection of accounts, discharge, and loading strengths is necessary in the evaluation of the revenue requirements. This projection is critical for the determination of revenues from rates, escalation of treatment-related costs, and design of the rates.

Given the current economic climate and review of potential growth, City staff was determined to use a conservative a growth rate starting at 0.2% (35 new account accounts) in Fiscal Year 2010 rising slowly and topping off at 1.6% (304 new accounts) by Fiscal Year 2020.

# Revenue Requirements Analysis

## Revenue from Existing Rates

The first step in developing the revenue requirements is to develop a projection of revenues from existing rates. The City expects to receive approximately $6.5 million in wastewater related charges in Fiscal Year 2010. By 2020, assuming the growth discussed above, wastewater charges are projected to increase roughly 10% to $7.2 million.

## Projections of Operation and Maintenance Expenses

To project Operating and Maintenance (O&M) expenses over the ten-year planning horizon, two escalation factors were developed. The operations cost escalator, set at 2.75%, is applied to basic expenditures that the Department incurs: labor, benefits, materials, utilities, etc. The depreciation expense escalator, set at 2.0%, helps the City maintain appropriate recovery levels for depreciated facilities and other assets. Additionally, the City, as part of its financial policies, has established a reserve policy to provide 10% (37 days) of its annual operating and maintenance expenses in a reserve account.

## Debt Service

Debt service is the Department's annual debt service obligations (principal and interest) when projects are financed via long-term debt. The City's wastewater obligations are spread between wastewater and reclaimed water as this debt benefited both systems. Figure 4-3 provides a summary of the City's wastewater related debt service and the system's final annual obligation.

Figure 4-3: Debt Service Report

**Existing Debt**

| | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 |
|---|---|---|---|---|---|---|
| **Wastewater Debt Financing** | | | | | | |
| Wells Fargo Lease Payable - APSES | $ 250,956 | $ 250,956 | $ 250,956 | $ 250,956 | $ 250,956 | $ 250,956 |
| SRF Loan 910007-93 | 421,955 | 420,819 | 419,646 | - | - | - |
| ADEQ-WIFA - Wildcat | 1,686,675 | 1,686,675 | 1,686,675 | 1,686,675 | 1,686,675 | 1,686,675 |
| Total Wastewater Debt Requirements | $ 2,359,586 | $ 2,358,450 | $ 2,357,277 | $ 1,937,631 | $ 1,937,631 | $ 1,937,631 |
| Reclaimed Water's Portion of Debt | $ 459,782 | $ 459,560 | $ 459,332 | $ 377,561 | $ 377,561 | $ 377,561 |
| Remainder to Wastewater system | $ 1,899,804 | $ 1,898,890 | $ 1,897,945 | $ 1,560,070 | $ 1,560,070 | $ 1,560,070 |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

## Capital Improvement Projects

The Department's capital improvements projects (CIPs) for the wastewater utility are summarized in Figure 4-4. Individually, each project was identified by City staff as growth-related, existing needs (O&M) or a percentage of both to determine the appropriate funding mechanism (monthly rates or connection fee). The capital projects are required to meet the utilities projected growth and to maintain the existing quality of the system.

Figure 4-4: Wastewater Capital Projects by Funding Source

| Description | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 |
|---|---|---|---|---|---|---|
| Rate Funded Capital Projects | $ - | $ 100,000 | $ 1,095,000 | $ 1,300,000 | $ 1,685,000 | $ 1,820,000 |
| Fee Funded Capital Projects (Growth) | - | - | 30,000 | - | 380,000 | 180,000 |
| **Total Rate and Fee Funded Project Costs** | **$ -** | **$ 100,000** | **$ 1,125,000** | **$ 1,300,000** | **$ 2,065,000** | **$ 2,000,000** |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

## Summary of Revenue Requirements Analysis

The above components comprise the foundation of the revenue requirement analysis. Given the current economic climate, the consulting team facilitated several meetings with City staff and committee members to assure the accuracy of financial and growth variables in developing the revenue requirement analysis. Particular emphasis was placed on attempting to minimize rates, yet still encompass adequate funds to support the operational activities and capital projects throughout the study period.

The revenue requirements analysis figure, presented below, provides a basis for evaluating the timing and level of wastewater revenue increases required to meet the projected required revenue for the study period. The percentages shown at the bottom of the figure show the recommended revenue adjustments.

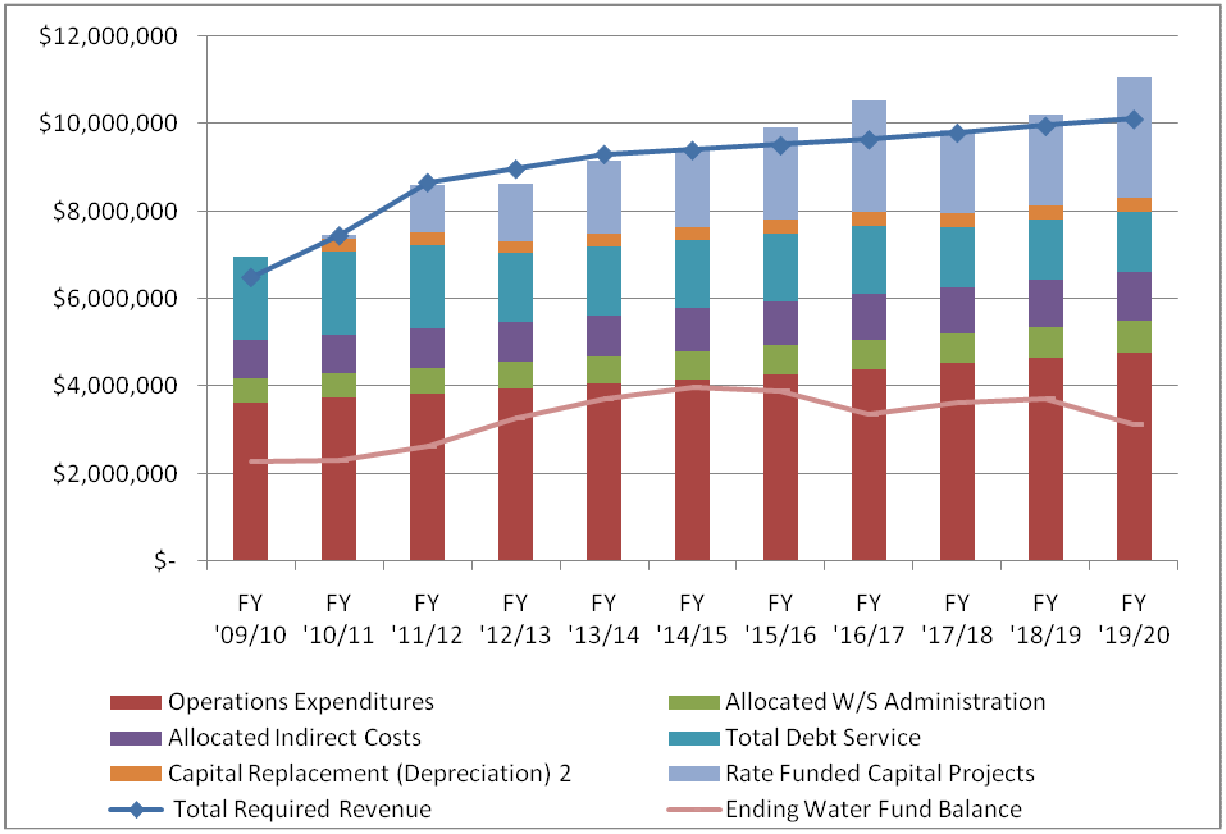
## Figure 4-5: Summary of Wastewater Revenue Requirements

| Description | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| Total Revenues (before increase) | $ 7,143,278 | $ 6,548,488 | $ 6,582,597 | $ 6,606,396 | $ 6,647,271 | $ 6,719,546 |
| Additional Rate Revenue (increase) | - | 938,303 | 2,129,046 | 2,395,617 | 2,678,283 | 2,705,066 |
| **Total Revenues** | **$ 7,143,278** | **$ 7,486,790** | **$ 8,711,643** | **$ 9,002,012** | **$ 9,325,554** | **$ 9,424,612** |
| **Expenses** | | | | | | |
| Operating Expenses | $ 5,051,474 | $ 5,190,390 | $ 5,333,126 | $ 5,479,787 | $ 5,630,481 | $ 5,785,319 |
| Annual Debt Service | 1,899,804 | 1,898,890 | 1,897,945 | 1,560,070 | 1,560,070 | 1,560,070 |
| Capital Replacement | - | 278,025 | 283,586 | 289,258 | 295,043 | 300,944 |
| Capital Replacement (Incurred) | - | - | (228,025) | (283,586) | (289,258) | (295,043) |
| Rate Funded Capital Projects | - | 100,000 | 1,095,000 | 1,300,000 | 1,685,000 | 1,820,000 |
| **Total Expenses** | **$ 6,951,279** | **$ 7,467,305** | **$ 8,381,631** | **$ 8,345,529** | **$ 8,881,336** | **$ 9,171,290** |
| **Net Income (Loss)** | **$ 191,999** | **$ 19,485** | **$ 330,012** | **$ 656,484** | **$ 444,218** | **$ 253,322** |
| Ending Wastewater Fund Balance | 2,278,255 | 2,297,740 | 2,627,752 | 3,284,235 | 3,728,454 | 3,981,775 |
| Ending Wastewater CR Fund Balance | - | 278,025 | 333,586 | 339,258 | 345,043 | 350,944 |
| **Additional Revenue Increase** | **0.0%** | **30.0%** | **3.0%** | **3.0%** | **3.0%** | **0.0%** |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

Based upon the revenue requirement analysis, the City will need to adjust their rates to increase revenue by 30% in the first year, following smaller revenue increases in subsequent years, approximately 42% over the next five years. Figure 4-6 expands upon the earlier figure (Figure 4-1), to illustrate the positive impact of the revenue increase on the utility's financial condition.

Figure 4-6: Revenue and Expenditure Projections – Proposed Rates




## Cost of Service Analysis

This section of the report discusses the allocation of operating and capital costs to the Flow, Suspended Solids (SS) and Biochemical Oxygen Demand (BOD) parameters, the determination of unit rates, and the calculation of user class cost responsibility.

### Cost Allocation by Function

The cost of service allocation conducted in this study is established on the flow and strength characteristics method, which is endorsed by the Water Environmental Federation (WEF). Under this method, revenue requirements are allocated to the different user classes proportionate to their use of the wastewater system. Allocations are based on flow volume, SS, BOD, customer accounts, and wastewater monitoring. Use of this methodology results in a generally accepted cost distribution among customer classes and a means of calculating and designing rates to proportionately recover those costs.

Figure 4-7 presents the net plant in service analysis. This analysis is important in order to determine an appropriate and reasonable means of allocating debt service requirements and future capital projects to utility demand.

## Figure 4-7: Functionalization of Net Plant Investment

| Description | Plant Investment | Flow Volume | BOD | SS | Customer Accounts | Basis of Classification |
|---|---|---|---|---|---|---|
| Preliminary Treatment | $ 3,787,538 | $ 378,754 | $ 1,136,261 | $ 2,272,523 | $ - | 10% Flow 30% BOD 60% SS |
| Primary Sedimentation | 7,511,344 | 751,134 | 2,253,403 | 4,506,806 | - | 10% Flow 30% BOD 60% SS |
| Primary Effluent Pump Station | 978,751 | 978,751 | - | - | - | 100% Flow |
| Biofilters | 5,503,767 | - | 5,503,767 | - | - | 100% BOD |
| Secondary Sedimentation | 5,526,528 | 2,763,264 | 2,763,264 | - | - | 50% Flow 50% BOD |
| Chlorination Facilities | 1,047,036 | 1,047,036 | - | - | - | 100% Flow |
| Reclamation Water Pump - Wildcat Hill | 357,303 | 357,303 | - | - | - | 100% Flow |
| Reclamation Water Pump - Rio de Flag | 225,395 | 225,395 | - | - | - | 100% Flow |
| Digesters | 6,578,116 | - | 3,289,058 | 3,289,058 | - | 50% BOD 50% SS |
| Storm Drain Pump Station | 136,570 | 136,570 | - | - | - | 100% Flow |
| Outside Piping | 4,552,330 | 4,552,330 | - | - | - | 100% Flow |
| Aeration Basins | 11,272 | - | 11,272 | - | - | 100% BOD |
| Reclaimed Water Plant | 21,086,572 | 21,086,572 | - | - | - | 100% Flow |
| General Plant-Treatment Plant | 20,560,924 | 6,353,217 | 8,491,570 | 5,716,137 | - | As Plant before Gen. Plant |
| Total Treatment Plant | $ 77,863,446 | $ 38,630,325 | $ 23,448,595 | $ 15,784,525 | $ - | |
| Liquid Waste Disposal | $ 1,084,890 | 1,084,890 | - | - | - | 100% Flow |
| WWTP Sludge Disposal | 44,038 | - | 22,019 | 22,019 | - | 50% BOD 50% SS |
| Collection System | 84,969,240 | 84,969,240 | - | - | - | 100% Flow |
| General Plant | 4,951,539 | 4,949,006 | 1,266 | 1,266 | - | As Plant before Gen. Plant |
| Total Plant | $ 91,049,707 | $ 91,003,136 | $ 23,286 | $ 23,286 | $ - | |
| Less Contributed Plant | (176,058) | (175,968) | (45) | (45) | - | As % of Total Plant |
| Net Plant Investment | $ 168,913,152 | $ 129,633,461 | $ 23,471,881 | $ 15,807,811 | $ - | |
| % of Net Plant in Service | 100.0% | 76.75% | 13.90% | 9.36% | 0.0% | |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

The resulting net plant allocations were applied to the current system cost of service analysis depicted in Figure 4-7. This figure classifies the major functions of the water system and allocates those related costs to the demand factors flow volume, SS, BOD, customer accounts.

## Figure 4-8: Classification of Sewer Expenses by Function

| Description | Total Sewer Expenses | Flow Volume | BOD | SS | Customer Accounts | Wastewater Monitoring | Basis of Classification |
|---|---|---|---|---|---|---|---|
| **Wastewater Treatment** | | | | | | | |
| Operations Expense-Treatment | $ 821,693 | $ 82,169 | $ 246,508 | $ 493,016 | $ - | $ - | 10% Flow 30% BOD 60% SS |
| Maintenance Services-Treatment | 584,897 | 58,490 | 175,469 | 350,938 | - | - | 10% Flow 30% BOD 60% SS |
| Other WW Treatment Expense | 220,680 | 22,068 | 66,204 | 132,408 | - | - | 10% Flow 30% BOD 60% SS |
| Total WW Treatment Expense | $ 1,627,270 | $ 162,727 | $ 488,181 | $ 976,362 | $ - | $ - | |
| **Wastewater Collection and Transmission** | | | | | | | |
| Operations Expense-Collection | $ 245,179 | $ 245,179 | $ - | $ - | $ - | $ - | 100% Vol |
| Maintenance Services-Collection | 668,917 | 668,917 | - | - | - | - | 100% Vol |
| Total WW Collection and Transmission Expense | $ 914,096 | $ 914,096 | $ - | $ - | $ - | $ - | |
| **Wastewater Monitoring** [1] | | | | | | | |
| Operations Expense-Monitoring | $ 300,801 | $ - | $ - | $ - | $ - | $ 300,801 | 100% Vol |
| Total WW Monitoring Expense | $ 300,801 | $ - | $ - | $ - | $ - | $ 300,801 | |
| **Rio Reclaimed Water Plant** | | | | | | | |
| Operations Expense-Reclaim | $ 515,179 | $ 171,726 | $ 171,726 | $ 171,726 | $ - | $ - | 33% Flow 33% BOD 33% SS |
| Maintenance Services-Reclaim | 195,156 | 65,052 | 65,052 | 65,052 | - | - | 33% Flow 33% BOD 33% SS |
| Monitoring Expense-Reclaim | 84,177 | 28,059 | 28,059 | 28,059 | - | - | 33% Flow 33% BOD 33% SS |
| Total Rio Plant Expense | $ 794,513 | $ 264,838 | $ 264,838 | $ 264,838 | $ - | $ - | |
| **General & Administrative** | | | | | | | |
| Misc General Expense | $ 3,648 | $ 1,824 | $ - | $ - | $ 1,824 | $ - | 50% Vol 50% CA |
| Allocated WS Administration | 556,930 | 278,465 | - | - | 278,465 | - | 50% Vol 50% CA |
| Allocated Indirect Costs | 854,217 | 427,108 | - | - | 427,108 | - | 50% Vol 50% CA |
| Total G&A Expense | $ 1,414,795 | $ 707,398 | $ - | $ - | $ 707,398 | $ - | |
| **Capital Requirements** | | | | | | | |
| Capital Replacement | $ 276,755 | $ 212,397 | $ 38,457 | $ 25,900 | $ - | $ - | As Net Plant in Service |
| Rate Fund Capital Projects | 1,579,224 | 1,211,985 | 219,446 | 147,792 | - | - | As Net Plant in Service |
| Debt Service | 1,597,367 | 1,225,909 | 221,967 | 149,490 | - | - | As Net Plant in Service |
| Total Capital Requirements Expense | $ 3,453,345 | $ 2,650,292 | $ 479,871 | $ 323,183 | $ - | $ - | |
| **TOTAL FUNCTIONALIZED COSTS** | **$ 8,504,820** | **$ 4,699,350** | **$ 1,232,889** | **$ 1,564,382** | **$ 707,398** | **$ 300,801** | |
| **FUNCTIONALIZATION FACTOR** | **100.0%** | **55.3%** | **14.5%** | **18.4%** | **8.3%** | **3.5%** | |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

The resulting functionalization factors that appear at the bottom of Figure 4-8 are utilized to allocate system operating and capital costs to each customer class based on the unique stress each class demands on the system.

## Rate Design Analysis

The final step of the rate study is the design of the wastewater rates to collect the desired level of revenue determined in the revenue requirement analysis. During this analysis, consideration is given to the levels of the rates. This section reviews the proposed wastewater rate design for the City.

### Criteria and Considerations

In determining the appropriate rate level and structure, the consulting team, in conjunction with City staff and the City's Water Commission, analyzed various generated financial scenarios concerning the proposed adjustments and the implications attributed to those decisions.

Listed below is a simplified list of the design considerations that were reviewed:

- Consideration of the customer's ability to pay
- Clear and understandable rates
- Easily administered
- Outdoor water usage
- Revenue stability (month to month and year to year)
- Efficient allocation of resources
- Implementation of Capital Improvements (rate of improving the existing system)
- Fair and equitable (cost-based) rates

When developing the City's proposed rates all of the aforementioned criteria were taken into consideration. Determining the appropriate balance is crucial, as some of the criteria sometime conflict with one another, i.e. the customers ability to pay and cost-based. In designing rates, there will always be concessions between the various objectives; however, the proposed rates meet all of the leading objectives of the City.

## Overview of Existing Rate Structure

The City's existing wastewater rate structure is a uniform rate, per thousand gallons, based on the amount of metered water less irrigation deduction. All wastewater accounts are charged a uniform rate. Figure 4-9 shows the City's existing rate structure and rates.

Figure 4-9: Current Sewer Discharge Rates by Customer Class

| Description | Customer Class | Current |
|---|---|---|
| Residential | | |
| Single- and Multi-Family | R1 - R4 | 3.12 |
| Non-Residential | | |
| Car Washes | CW | 2.58 |
| Laundromats | L | 2.81 |
| Commercial | C | 3.01 |
| Hotels & Motels | H | 4.09 |
| Restaurants | RF | 5.04 |
| Industrial Laundries | IL | 4.47 |
| Manufacturing | MN | 3.05 |
| Pet Food Manufacturers | PF | 8.34 |
| Soft Drink Bottling | SD | 7.31 |
| Ice Cream Cone Mfg | IC | 10.65 |
| Northern Arizona University | NA | 2.68 |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

## Proposed Rate Adjustments

Figure 4-10 recaps the proposed variable rates by customer class as designed in this study.

Figure 4-10: Monthly Sewer Discharge Rates by Customer Class

| Description | Customer Class | Current | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 |
|---|---|---|---|---|---|---|---|
| | | Monthly Sewer Discharge Rates per 1,000 gal ($) | | | | | |
| Residential | | | | | | | |
| Single- and Multi-Family | R1 - R4 | 3.12 | 3.08 | 3.59 | 3.69 | 3.80 | 3.80 |
| Non-Residential | | | | | | | |
| Car Washes | CW | 2.58 | 3.06 | 3.56 | 3.70 | 3.82 | 3.82 |
| Laundromats | L | 2.81 | 3.14 | 3.65 | 3.80 | 3.91 | 3.92 |
| Commercial | C | 3.01 | 3.22 | 3.75 | 3.90 | 4.01 | 4.02 |
| Hotels & Motels | H | 4.09 | 4.32 | 5.03 | 5.21 | 5.37 | 5.38 |
| Restaurants | RF | 5.04 | 5.20 | 6.05 | 6.27 | 6.45 | 6.46 |
| Industrial Laundries | IL | 4.47 | 4.77 | 5.55 | 5.76 | 5.93 | 5.94 |
| Manufacturing | MN | 3.05 | 3.46 | 4.02 | 4.18 | 4.31 | 4.32 |
| Pet Food Manufacturers | PF | 8.34 | 7.64 | 8.89 | 9.19 | 9.47 | 9.48 |
| Soft Drink Bottling | SD | 7.31 | 6.05 | 7.04 | 7.29 | 7.50 | 7.51 |
| Ice Cream Cone Mfg | IC | 10.65 | 9.46 | 11.02 | 11.38 | 11.72 | 11.73 |
| Northern Arizona University | NA | 2.68 | 2.79 | 3.24 | 3.37 | 3.48 | 3.48 |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

### *Impact of Revenue Increase*

In Fiscal Year 2011, the proposed 30% increase in required revenue does not directly correlate to a 30% increase in rates. The cost of service analysis redistributes the required revenue proportionate to each customer class' demand on the system. Thus, the proposed rate adjustments may vary between customer classes.

Figure 4-11 details a comparison of the City's existing wastewater rates with the proposed single-family rates (rate effective January 2011). Average usage for SFR is 5,000 gallons – fifty percent (50%) of billed customers discharge fewer than 5,000 gallons. If an "average family" of four were assumed, generally, consumption would be between 7,500 and 10,000 gallons a month. As revealed in the comparison, the proposed rates have a greater impact on high water users.

Figure 4-11: Comparative Wastewater Bills – SFR

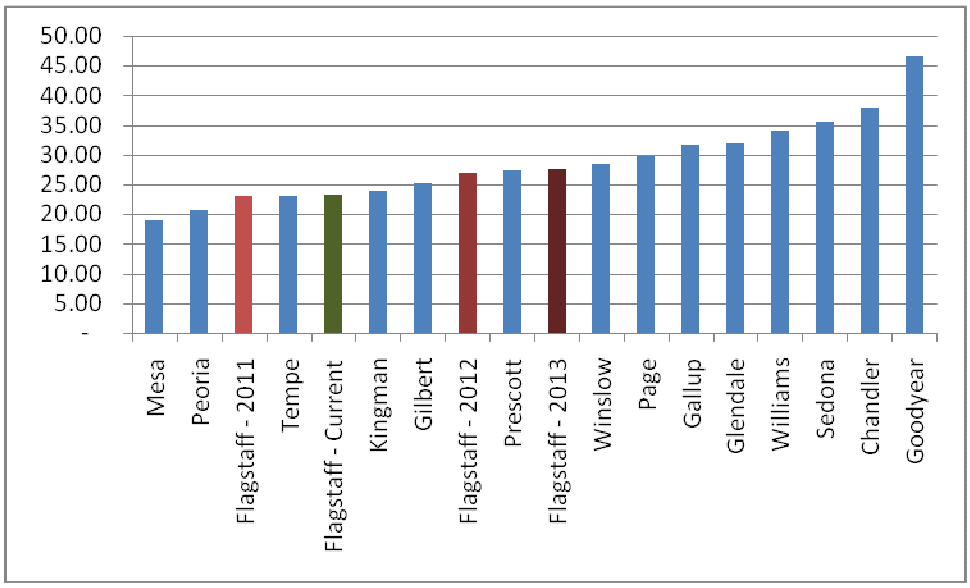
| Monthly Discharge (gal) | Current Monthly Bill - FY 09/10 | Proposed 2011 Monthly Bill | $ Difference from Current Rates |
|---|---|---|---|
| 3,500 | 10.92 | 10.78 | (0.14) |
| 5,000 | 15.60 | 15.40 | (0.20) |
| 7,500 | 23.40 | 23.09 | (0.31) |
| 10,000 | 31.20 | 30.79 | (0.41) |
| 15,000 | 46.80 | 46.19 | (0.61) |
| 20,000 | 62.40 | 61.59 | (0.81) |
| 25,000 | 78.00 | 76.98 | (1.02) |
| 30,000 | 93.60 | 92.38 | (1.22) |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

### *Rate Comparison*

While the cost structure and facilities vary greatly between wastewater utilities, rate comparisons provide City staff with a barometer of its rates in relation to surrounding communities. In the figure below, monthly bill estimates, assuming 7,500 gallons of discharge are compared to other Arizona utilities.

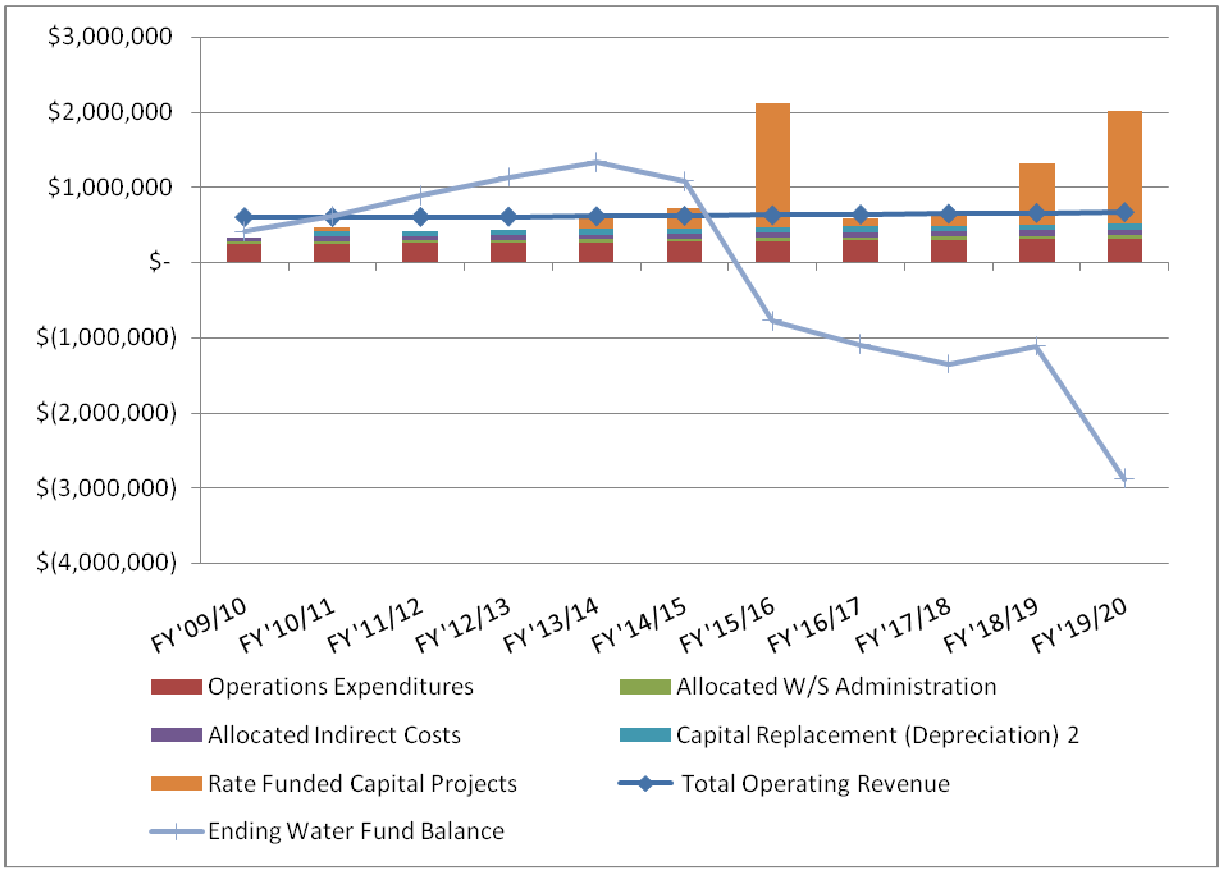
Figure 4-12: SFR Rate Comparison –7,500 gallons



# Reclaimed Water Rate Analysis

The City recently completed a major upgrade to the Wildcat Hill WWTP from Class B to Class A+ quality reclaimed water. Escalating capital and operation and maintenance costs for the reclaimed system exceed the current revenue stream produced by the reclaimed water rates. Figure 5-1 projects the adequacy of existing rate revenue assuming no rate increases.

Figure 5-1: Revenue and Expenditure Projections – Existing Rates




As the figure indicates, revenue increases are necessary to operate and maintain the reclaimed water system as the ending fund balance becomes negative. This is evident as details of the process, data, and methodology utilized in the rate study are presented in this section of the report. Summary figures, outlining much of the analysis, are included in this section of the report. Technical figures, which provide a greater level of detail and breadth, are provided in the Technical Appendix.

## Customer Statistics

During the Fiscal Year 2008, it is estimated that the City provided reclaimed water service to 101 customers, consuming roughly 700 million gallons of reclaimed water. Figure 5-2 shows usage and number of accounts by customer class as billed by the City.

Figure 5-2: Reclaimed Water Consumption by Class

| Description | Class | Accounts | Consumption (1,000 gal) [1] |
|---|---|---|---|
| Commercial | C | 30 | 46,945,930 |
| Manufacturing | MN | 1 | 63,940,000 |
| City Departmental | MU | 31 | 60,989,071 |
| Northern Arizona University | NA | 6 | 29,858,210 |
| Private Residential | R1 | 9 | 1,892,811 |
| Self Loading Stations and Hydrant Meters | RS/WR | 9 | 33,009,086 |
| Off Peak/High Volume | WR | 15 | 452,975,500 |
| Total | | 101 | 689,610,608 |

1. Consumption period is 2008.

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

A projection of accounts and consumption is necessary in the evaluation of the revenue requirements. This projection is critical for the determination of revenues from rates, escalation of production and delivery related costs, and design of the rates. Due to the nature of the reclaimed water system and existing users, no growth is assumed in users or usage.

# Revenue Requirements Analysis

## Revenue from Existing Rates

The first step in developing the revenue requirements is to develop a projection of revenues from existing rates. The City expects to receive approximately $600,000 in reclaimed water related charges in Fiscal Year 2010. By 2020, assuming zero growth as discussed above, reclaimed water sales will remain unchanged.

## Projections of Operation and Maintenance Expenses

To project Operating and Maintenance (O&M) expenses over the ten-year planning horizon, two escalation factors were developed. The operations cost escalator, set at 2.75%, applies to basic expenditures that the Department incurs: labor, benefits, materials, utilities, etc. The depreciation expense escalator, set at 2.0%, helps the City maintain appropriate recovery levels for depreciated facilities and other assets. Additionally, the City, as part of its financial policies, has established a reserve policy to provide 10% (37 days) of its annual operating and maintenance expenses in a reserve account.

## Debt Service

Debt service is the Department's annual debt service obligations (principal and interest) when projects are financed via long-term debt. The City's wastewater obligations are spread between wastewater and

reclaimed water as this debt benefited both systems. Figure 5-3 provides a summary of the City's reclaimed water related debt service and the systems final annual obligation.

Figure 5-3: Debt Service Report

**Existing Debt**

| | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 |
|---|---|---|---|---|---|---|
| **Wastewater Debt Financing** | | | | | | |
| Wells Fargo Lease Payable - APSES | $ 250,956 | $ 250,956 | $ 250,956 | $ 250,956 | $ 250,956 | $ 250,956 |
| SRF Loan 910007-93 | 421,955 | 420,819 | 419,646 | - | - | - |
| ADEQ-WIFA - Wildcat | 1,686,675 | 1,686,675 | 1,686,675 | 1,686,675 | 1,686,675 | 1,686,675 |
| Total Wastewater Debt Requirements | $ 2,359,586 | $ 2,358,450 | $ 2,357,277 | $ 1,937,631 | $ 1,937,631 | $ 1,937,631 |
| Reclaimed Water's Portion of Debt | $ 459,782 | $ 459,560 | $ 459,332 | $ 377,561 | $ 377,561 | $ 377,561 |
| Remainder to Wastewater system | $ 1,899,804 | $ 1,898,890 | $ 1,897,945 | $ 1,560,070 | $ 1,560,070 | $ 1,560,070 |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

## Capital Improvement Projects

The Department's capital improvements projects (CIPs) for reclaimed water are summarized below in Figure 5-4. City staff specified each project as growth-related, existing needs (O&M) or a percentage of both to determine the appropriate funding mechanism (monthly rates or connection fee). The capital projects are required to meet the utilities projected growth and to maintain the existing quality of the system.

Figure 5-4: Reclaimed Water Capital Projects by Funding Source

| Description | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 |
|---|---|---|---|---|---|---|
| Rate Funded Capital Projects | $ - | $ 50,000 | $ - | $ - | $ 150,000 | $ 260,000 |
| Fee Funded Capital Projects (Growth) | - | - | - | - | - | 50,000 |
| **Total Rate and Fee Funded Project Costs** | **$ -** | **$ 50,000** | **$ -** | **$ -** | **$ 150,000** | **$ 310,000** |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

## Summary of Revenue Requirements Analysis

The above components comprise the foundation of the revenue requirement analysis. Given the current economic climate, the consulting team facilitated several meetings with City staff and committee members to assure the accuracy of financial and growth variables in developing the revenue requirement analysis.

The revenue requirements analysis figure, presented below, provides a basis for evaluating the timing and level of reclaimed water revenue increases required to meet the projected required revenue for the study period. The percentages shown at the bottom of the figure show the recommended revenue adjustments.

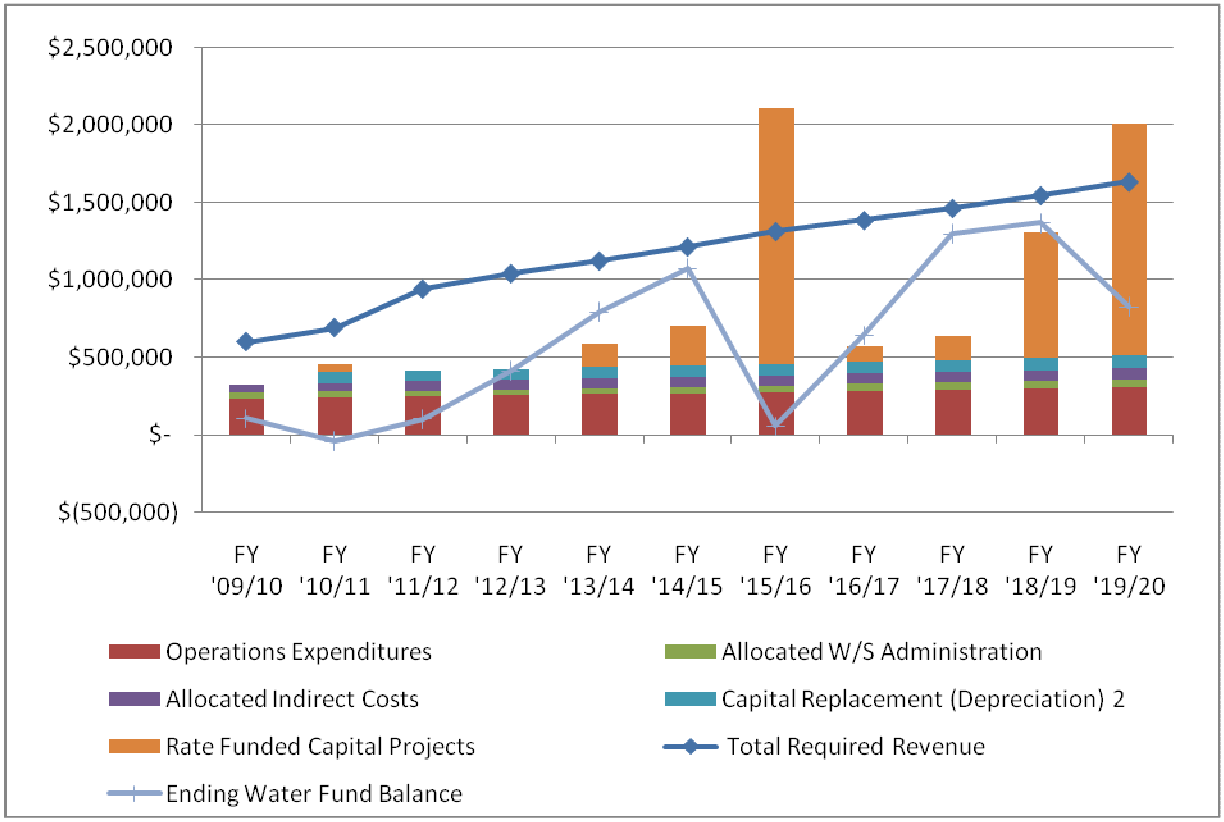
## Figure 5-5: Summary of Reclaimed Water Revenue Requirements Analysis

| Description | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| Total Revenues (before increase) | $ 756,453 | $ 610,081 | $ 614,073 | $ 613,714 | $ 615,602 | $ 623,163 |
| Additional Rate Revenue (increase) | - | 90,080 | 337,646 | 434,294 | 511,211 | 595,692 |
| **Total Revenues** | **$ 756,453** | **$ 700,161** | **$ 951,719** | **$ 1,048,009** | **$ 1,126,813** | **$ 1,218,855** |
| **Expenses** | | | | | | |
| Operating Expenses | $ 329,493 | $ 338,554 | $ 347,864 | $ 357,430 | $ 367,260 | $ 377,359 |
| Annual Debt Service | 459,782 | 459,560 | 459,332 | 377,561 | 377,561 | 377,561 |
| Capital Replacement (Depreciation) | - | 67,286 | 68,632 | 70,005 | 71,405 | 72,833 |
| Capital Replacement (Incurred) | - | - | - | - | (150,000) | (77,328) |
| Rate Funded Capital Projects | - | 50,000 | - | - | 150,000 | 260,000 |
| **Total Expenses** | **$ 789,274** | **$ 915,400** | **$ 875,828** | **$ 804,996** | **$ 816,225** | **$ 1,010,425** |
| **Net Income (Loss)** | **$ (32,821)** | **$ (215,239)** | **$ 75,891** | **$ 243,013** | **$ 310,588** | **$ 208,430** |
| Ending Reclaim Fund Balance | 103,259 | (44,694) | 99,830 | 412,847 | 794,840 | 1,076,103 |
| Ending Reclaim CR Fund Balance | - | 67,286 | 135,918 | 205,923 | 127,328 | 122,833 |
| **Additional Revenue Increase** | **0.0%** | **30.0%** | **20.0%** | **10.0%** | **7.0%** | **7.0%** |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

Based upon the revenue requirement analysis, the City will need to adjust their rates to increase revenue by 30% in the first year, following smaller revenue increase in subsequent years, approximately 96% over the next five years. Figure 5-6 expands upon the earlier figure (Figure 5-1) to illustrate the positive impact of the revenue increase on the utility's financial condition.

Figure 5-6: Revenue and Expenditure Projections – Proposed Rates




## Cost of Service Analysis

This section of the report discusses the allocation of operating and capital costs to the volume (usage) and customer accounts, the determination of unit rates, and the calculation of user class cost responsibility.

### Cost Allocation by Function

The base method was conducted to establish the cost of service allocation. Under this method, revenue requirements are allocated to the different user classes proportionate to their use of the reclaimed water system. Allocations are based on flow volume and customer accounts. Use of this methodology results in a generally accepted cost distribution amongst customer classes and a means of calculating and designing rates to proportionately recover those costs.

This figure classifies the major functions of the reclaimed water system and allocates those related costs to the demand factors volume and customer accounts.

## Figure 5-7: Classification of Reclaimed Water Expenses by Function

| Description | Total Reclaim Expenses | Reclaimed Water Volume | Customer Accounts | Basis of Classification |
|---|---|---|---|---|
| **Water Distribution** | | | | |
| Operations Expense - Distribution | $ 23,040 | $ 23,040 | $ - | 100% Vol |
| Total WW Monitoring Expense | $ 23,040 | $ 23,040 | $ - | |
| **Wastewater Treatment** | | | | |
| Operations Expense-Treatment | $ 42,316 | $ 42,316 | $ - | 100% Vol |
| Maintenance Services-Treatment | 7,000 | 7,000 | - | 100% Vol |
| Total WW Treatment Expense | $ 49,316 | $ 49,316 | $ - | |
| **Wastewater Collection and Transmission** | | | | |
| Operations Expense-Collection | $ 22,224 | $ 22,224 | $ - | 100% Vol |
| Total WW Collection and Transmission Expense | $ 22,224 | $ 22,224 | $ - | |
| **Rio Reclaimed Water Plant** | | | | |
| Operations Expense-Reclaim | $ 92,676 | $ 92,676 | $ - | 100% Vol |
| Maintenance Services-Reclaim | 10,000 | 10,000 | - | 100% Vol |
| Monitoring Expense-Reclaim | 12,168 | 12,168 | - | 100% Vol |
| Total Rio Plant Expense | $ 114,843 | $ 114,843 | $ - | |
| **General & Administrative** | | | | |
| Water Conservation | $ 94,024 | $ 47,012 | $ 47,012 | 50% Vol 50% CA |
| Allocated WS Administration | 36,327 | 18,163 | 18,163 | 50% Vol 50% CA |
| Allocated Indirect Costs | 55,718 | 27,859 | 27,859 | 50% Vol 50% CA |
| Total G&A Expense | $ 186,069 | $ 93,034 | $ 93,034 | |
| **Capital Requirements** | | | | |
| Capital Replacement | $ 73,677 | $ 73,677 | $ - | 100% Vol |
| Rate Fund Capital Projects | 467,000 | 467,000 | - | 100% Vol |
| Total Capital Requirements Expense | $ 540,677 | $ 540,677 | $ - | |
| **TOTAL FUNCTIONALIZED COSTS** | **$ 936,169** | **$ 843,135** | **$ 93,034** | |
| **FUNCTIONALIZATION FACTOR** | **100.0%** | **90.1%** | **9.9%** | |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

The resulting functionalization factors that appear at the bottom of Figure 5-7 are utilized to allocate system operating and capital costs to each customer class based on the unique stress each class demands on the system.

## Rate Design Analysis

The final step of the rate study is the design of the reclaimed water rates to collect the desired level of revenue, determined in the revenue requirement analysis. During this analysis, consideration is given to the levels of the rates. Changes to the rates structure were discussed, but not pursued further. This section reviews the proposed reclaimed rate design for the City.

### Criteria and Considerations

In determining the appropriate rate level and structure, one must consider numerous options and the implications attributed to those decisions. In several meetings with City staff and the City's Water Commission, a great deal of consideration transpired. The City reflected on past consequences while reviewing many scenarios concerning the proposed adjustments to the rate level.

A simplified list of some of the design considerations that were reviewed is listed:

- Consideration of the customer's ability to pay
- Clear and understandable rates
- Easily administered
- Price differential between reclaimed and potable
- Revenue stability (month to month and year to year)
- Efficient allocation of resources
- Implementation of Capital Improvements (rate of improving the existing system)
- Fair and equitable (cost-based) rates

The last consideration, cost-based rates, is considered by many of the City's staff as the primary goal. While the consulting team agrees with this position, every consideration has merit and plays an important role in a comprehensive rate study. When developing the City's proposed rates all of the aforementioned criteria were taken into consideration. Determining the appropriate balance is crucial, as some of the criteria sometime conflict with one another, i.e. the customers ability to pay and cost-based. In designing rates, there will always be concessions between the various objectives; however, the proposed rates meet all of the leading objectives of the City.

## Overview of Existing Rate Structure

The City's existing reclaimed rate structure consists of seven (7) customer classes. As shown below in Figure 5-8, six of the classes employ a uniform rate. Off Peak/High Volume (golf course) customers are currently charged a declining rate, where the cost decreased with each additional unit of consumption. The City's existing reclaimed rates are based on a percentage of the customer class' potable water rate and whether or not a customer has a main extension.

Figure 5-8: Monthly Reclaimed Water Rates by Customer Class

| Description | Customer Class | Current | Notes |
|---|---|---|---|
| Commercial (no main Ext) | C | 1.1095 | 35% of C |
| Commercial (w/Main Ext) | C | 2.3775 | 75% of C |
| Manufacturing (no main Ext) | MN | 1.0080 | 35% of Mfg |
| Manufacturing (w/Main Ext) | MN | 2.1600 | 75% of Mfg |
| City Departmental | MU | 2.2600 | 75% LM |
| NAU (Sinclair Wash-Intramural Fields) | NA | 0.9800 | 35% of NAU |
| NAU all other | NA | 2.1000 | 75% of NAU |
| Private Residential | | | |
| Tier 1 | R1 | 1.0570 | 35% of R1 |
| Tier 2 | R1 | 1.2390 | 35% of R1 |
| Tier 3 | R1 | 1.7605 | 35% of R1 |
| Tier 4 | R1 | 3.0695 | 35% of R1 |
| Self Loading Stations and Hydrant Meters | RS/WR | 1.0700 | Cost Analysis |
| Off Peak/High Volume | WR | 1.0700 | Cost Analysis |

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

## Proposed Rate Adjustments

The proposed rates shown in Figure 5-9 below are not the cost-based rates. While cost-based rates were developed, the City decided to maintain their existing reclaimed water rate design. In order to incentivize use of reclaimed water, the cost of the water must be below that of regular potable water. After reviewing the cost-based rates, City staff and the Water Commission decided to maintain the existing rate structure where possible. Furthermore, it was decided that a declining block rate was no longer prudent and was modified to a uniform rate as determined by the rate analysis.

Figure 5-9: Monthly Reclaimed Water Rates by Customer Class

| Description | Customer Class | Current | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | Notes |
|---|---|---|---|---|---|---|---|---|
| Commercial (no main Ext) | C | 1.1095 | 1.25 | 1.38 | 1.46 | 1.55 | 1.59 | 35% of C |
| Commercial (w/Main Ext) | C | 2.3775 | 2.68 | 2.97 | 3.14 | 3.32 | 3.40 | 75% of C |
| Manufacturing (no main Ext) | MN | 1.0080 | 1.24 | 1.37 | 1.45 | 1.53 | 1.57 | 35% of Mfg |
| Manufacturing (w/Main Ext) | MN | 2.1600 | 2.61 | 2.77 | 2.93 | 3.09 | 3.17 | 75% of Mfg |
| City Departmental | MU | 2.2600 | 1.25 | 1.38 | 1.46 | 1.55 | 1.59 | 35% C |
| NAU (Sinclair Wash-Intramural Fields) | NA | 0.9800 | 1.22 | 1.29 | 1.37 | 1.44 | 1.48 | 35% of NAU |
| NAU all other | NA | 2.1000 | 2.61 | 2.77 | 2.93 | 3.09 | 3.17 | 75% of NAU |
| Private Residential | | | | | | | | |
| Tier 1 | R1 | 1.0570 | 0.98 | 1.08 | 1.14 | 1.20 | 1.23 | 35% of R1 |
| Tier 2 | R1 | 1.2390 | 1.20 | 1.33 | 1.40 | 1.48 | 1.52 | 35% of R1 |
| Tier 3 | R1 | 1.7605 | 1.71 | 1.90 | 2.02 | 2.14 | 2.20 | 35% of R1 |
| Tier 4 | R1 | 3.0695 | 3.15 | 3.54 | 3.77 | 4.02 | 4.13 | 35% of R1 |
| Self Loading Stations and Hydrant Meters | RS/WR | 1.0700 | 2.55 | 2.99 | 3.19 | 3.36 | 3.55 | Cost Analysis |
| Off Peak/Golf Course | WR | 1.0700 | 1.04 | 1.38 | 1.46 | 1.55 | 1.59 | 35% of C |

* Water Energy Cost included

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

### *Impact of Revenue Increase*

In Fiscal Year 2011, the proposed 30% increase required revenue does not directly correlate to a 30% increase in rates. The cost of service analysis redistributes the required revenue proportionate to the users demand on the system. Thus, the proposed rate adjustments may vary between customer classes.

# Capacity Fees Background

Capacity fees are one-time charges that reflect the demands and costs created by new development for additional water and wastewater capacity. Generally, capacity fees are required to demonstrate a reasonable connection between the amount of the fee and the cost to serve new development (i.e. new development's proportionate share of infrastructure capacity costs). This section of the report documents the assumptions, methodologies, and calculations upon which the capacity fees are based. As documented in this section, the capacity fees are just and reasonable and represent new development's proportionate share of costs for capacity projects from which it will directly benefit.

The infrastructure included in capacity fees are large, system level components and do not include on-site or site specific improvements. Water system capacity can include components for water resources, production, storage, and distribution. Components of wastewater system capacity can include treatment, interceptors, and collection lines.

Figure 6-1: Capacity Fee Components

| Water Capacity Fee Components: | Wastewater Capacity Fee Components: |
|---|---|
| Resources | Treatment |
| Production | Interceptors |
| Storage | Collection Lines |
| Distribution | Planning and Study Efforts |
| Reclaimed Water | |
| Planning and Study Efforts | |

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

The capacity fees are based on water meter size. The capacity fees are calculated by multiplying the net capital cost per gallon of capacity by the average peak daily demand per residential connection (a ¾ inch water meter). The capacity fees for water meters larger than ¾ inches are derived from capacity ratios published by the AWWA.

## Calculation Methodologies

There are three basic methods used to calculate the various components of the City's capacity fees. The methodologies are used to determine the best measure of demand created by new development for each component of the capacity fees. The methodologies can be classified as looking at the past, present, and future capacities of infrastructure.

4. In instances where infrastructure has been built in advance of new development and has excess capacity available to be utilized by new development, the **buy-in methodology** is utilized. Under this methodology, new development repays the community for previous capacity investments via the capacity fee.

5. The **incremental expansion methodology** is used when a community plans to provide new development the same level-of-service (LOS) that is currently being provided to existing development in increments. Generally, utility infrastructure does not lend itself to this methodology given its nature of having to be in place prior to new development and capacity being constructed in large segments.
6. The **plan-based methodology** utilizes the City's capital improvement plan (CIP) and related master plans to determine new development's share of planned projects. Projects that do not add capacity, such as routine maintenance or replacement of existing facilities, are not included in the fees. Projects that add capacity are further evaluated as to the percentage of the project attributable to existing development versus new development. Only the portion of planned projects attributable to new development is included in the capacity fees.

The majority of the proposed capacity fees utilize the plan-based methodology, with the buy-in methodology being used for recent improvements to the Wildcat Hill Wastewater Treatment Plant. A summary of the capacity fee components and methodologies is shown in the figure below:

Figure 6-2: Capacity Fee Components

| Water Capacity Fee Components: | Calculation Methodology: |
|---|---|
| Resources | Plan-based |
| Production | Plan-based |
| Storage | Plan-based |
| Distribution | Plan-based |
| Reclaimed Water | Plan-based |
| Planning and Study Efforts | Plan-based |
| **Wastewater Capacity Fee Components:** | **Calculation Methodology:** |
| Treatment | Buy-in and Plan-based |
| Interceptors | Plan-based |
| Collection Lines | Plan-based |
| Planning and Study Efforts | Plan-based |

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

To better ensure the capacity fees are just and reasonable, a credit for capacity projects which have been funded with bonds backed by utility rates is deducted from the capacity fees. The inclusion of this credit in the capacity fee calculations is intended to avoid "double payment" situations whereby the payer of a capacity fee pays for the same capacity twice: once via the capacity fee and again via the utility rates. This calculation is discussed in greater detail in the wastewater capacity fee analysis.

## Current Estimates and Projections of Utility Demands

Future projections of customers and usage are necessary in evaluating of the capacity of the City's current systems and analyzing plans for future capacity expansions. The City plans and sizes its utility infrastructure for all potential users and demands. Thus, the capacity fees utilize projections of peak daily demands since this standard is utilized to design and build the infrastructure.

### Water

As noted earlier, given the current economic climate and review of potential growth, City staff recommended using a conservative a growth rate starting at 0.2% in FY2010 rising slowly and topping off at 1.6% in FY2020.

The net increase in projected peak water demand from FY2010 to FY2020 is 260,075 gallons per day.

#### Figure 6-3: Water Peaking Factor Projections

| Description | FY 2009 | FY 2010 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single Family | 1,472,072,346 | 1,475,016,491 | 1,359,120,551 | 1,364,557,034 | 1,372,744,376 | 1,383,726,331 | 1,397,563,594 | 1,414,334,357 | 1,434,135,038 | 1,457,081,199 | 1,480,394,498 | 1,504,080,810 |
| Multi-family | 627,669,808 | 628,925,148 | 568,739,626 | 571,014,584 | 574,440,672 | 579,036,197 | 584,826,559 | 591,844,478 | 600,130,300 | 609,732,385 | 619,488,103 | 629,399,913 |
| **Residential Peak Annual Consumption (gal)** | **2,099,742,155** | **2,103,941,639** | **1,927,860,177** | **1,935,571,618** | **1,947,185,047** | **1,962,762,528** | **1,982,390,153** | **2,006,178,835** | **2,034,265,339** | **2,066,813,584** | **2,099,882,601** | **2,133,480,723** |
| Commercial/Schools | 854,467,152 | 856,176,086 | 774,244,972 | 777,341,952 | 782,006,003 | 788,262,051 | 796,144,672 | 805,698,408 | 816,978,186 | 830,049,837 | 843,330,634 | 856,823,924 |
| Lawn Meters | 231,922,050 | 232,385,894 | 232,850,666 | 233,782,069 | 235,184,761 | 237,066,239 | 239,436,902 | 242,310,145 | 245,702,487 | 249,633,726 | 253,627,866 | 257,685,912 |
| Manufacturing | 136,225,051 | 136,497,501 | 123,435,942 | 123,929,686 | 124,673,264 | 125,670,650 | 126,927,357 | 128,450,485 | 130,248,792 | 132,332,773 | 134,450,097 | 136,601,299 |
| Northern Arizona University | 319,127,607 | 319,765,863 | 320,405,394 | 321,687,016 | 323,617,138 | 326,206,075 | 329,468,136 | 333,421,754 | 338,089,658 | 343,499,093 | 348,995,078 | 354,578,999 |
| Standpipes | 41,465,075 | 41,548,006 | 41,631,102 | 41,797,626 | 42,048,412 | 42,384,799 | 42,808,647 | 43,322,351 | 43,928,864 | 44,631,726 | 45,345,833 | 46,071,366 |
| **Nonresidential Peak Annual Consumption (gal)** | **1,583,206,936** | **1,586,373,350** | **1,492,568,076** | **1,498,538,349** | **1,507,529,579** | **1,519,589,815** | **1,534,785,714** | **1,553,203,142** | **1,574,947,986** | **1,600,147,154** | **1,625,749,508** | **1,651,761,501** |
| **Total Peak Annual Consumption (gal)** | **3,682,949,090** | **3,690,314,989** | **3,420,428,253** | **3,434,109,966** | **3,454,714,626** | **3,482,352,343** | **3,517,175,867** | **3,559,381,977** | **3,609,213,325** | **3,666,960,738** | **3,725,632,110** | **3,785,242,224** |
| **Total Daily Peak Consumption (gal)** | **10,090,271** | **10,110,452** | **9,371,036** | **9,408,520** | **9,464,972** | **9,540,691** | **9,636,098** | **9,751,731** | **9,888,256** | **10,046,468** | **10,207,211** | **10,370,527** |

Sources: Table A-10: Water Peaking Factor by Customer Class and Growth, Inflation, and Finance Assumptions

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

The net increase in projected water customers from FY2010 to FY2020 is 2,069, of which 1,859 are residential and 210 are nonresidential.

#### Figure 6-4: Water Customer Projections

| Description | FY 2009 | FY 2010 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single Family: Sewer-Winter Quarter Ave | 14,055 | 14,083 | 14,111 | 14,168 | 14,253 | 14,367 | 14,510 | 14,685 | 14,890 | 15,128 | 15,370 | 15,616 |
| Single Family: Sewer-Meter Related | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 16 | 16 | 16 | 16 | 17 |
| Multi-Family Units: Sewer-Winter Quarter Ave | 2,379 | 2,384 | 2,389 | 2,398 | 2,412 | 2,432 | 2,456 | 2,486 | 2,520 | 2,561 | 2,602 | 2,643 |
| Multi-Family: Sewer-Meter Related | 593 | 594 | 595 | 598 | 601 | 606 | 612 | 620 | 628 | 638 | 648 | 659 |
| **Total Residential Accounts** | **17,042** | **17,076** | **17,110** | **17,179** | **17,282** | **17,420** | **17,594** | **17,805** | **18,055** | **18,343** | **18,637** | **18,935** |
| Commercial/Schools | 1,618 | 1,621 | 1,624 | 1,631 | 1,641 | 1,654 | 1,670 | 1,690 | 1,714 | 1,742 | 1,769 | 1,798 |
| Lawn Meters | 252 | 253 | 253 | 254 | 256 | 258 | 260 | 263 | 267 | 271 | 276 | 280 |
| Manufacturing | 42 | 42 | 42 | 42 | 43 | 43 | 43 | 44 | 44 | 45 | 46 | 47 |
| Northern Arizona University | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 |
| Standpipes | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| **Total Nonresidential Accounts** | **1,924** | **1,928** | **1,932** | **1,939** | **1,951** | **1,967** | **1,986** | **2,010** | **2,038** | **2,071** | **2,104** | **2,138** |
| **Total Potable Water Accounts** | **18,966** | **19,004** | **19,042** | **19,118** | **19,233** | **19,387** | **19,581** | **19,816** | **20,093** | **20,414** | **20,741** | **21,073** |

Taken from Table A-12: Projected Water Accounts by Customer Class

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Wastewater

The net increase in projected peak wastewater demand from FY2010 to FY2020 is 957,637 gallons per day.

### Figure 6-5: Wastewater Peaking Factor Projections

| Description | FY 2009 | FY 2010 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Water Consumption (Daily) | 10,090,271 | | | | | | | | | | | |
| % of Water returned to Wastewater System | 87% | | | | | | | | | | | |
| Growth Assumptions | | 0.20% | 0.20% | 0.40% | 0.60% | 0.80% | 1.00% | 1.20% | 1.40% | 1.60% | 1.60% | 1.60% |
| **Peak Wastewater Daily Consumption** | **8,778,536** | **8,796,093** | **8,813,685** | **8,848,940** | **8,902,034** | **8,973,250** | **9,062,983** | **9,171,738** | **9,300,143** | **9,448,945** | **9,600,128** | **9,753,730** |

Source: Based on Peak Daily Water Consumption, percentage of water returned to the wastewater system, and growth assumptions.

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

Since all new water customers will hook up to the City's wastewater system, the number of new wastewater customers will equal the number of new water customers (2,069).

# Water Capacity Fees

The figure below lists the water CIP attributable to new development as prepared by City staff. As a part of the rate setting process, CIP projects are identified as growth-related, existing needs (O&M) or a percentage of both. The CIP presented below represents the capital project requirements needed to meet projected growth. The O&M portion will be utilized in the revenue requirements analysis for the rate analysis.

Figure 7-1: Water Capital Improvement Program Allocated to New Growth

| ID # | Project | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 523 | Well Pumphouse Buildings | $ - | $ - | $ - | $ 800,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 800,000 |
| | New Well and Pumphouse | - | - | - | - | - | - | 2,500,000 | - | - | - | - | 2,500,000 |
| | Red Gap Ranch drill 10 proving wells | - | - | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 1,350,000 |
| | Red Gap Pump test of wells | - | - | - | - | - | - | 4,000,000 | 3,000,000 | 2,000,000 | - | - | 9,000,000 |
| | GO BONDS | - | - | - | - | - | - | 800,000 | 800,000 | 800,000 | 900,000 | - | 3,300,000 |
| | Red Gap Environmental Impact Study & Statement | - | - | - | - | - | - | - | - | 4,500,000 | 4,500,000 | - | 9,000,000 |
| | Red Gap ROW Acquisition | - | - | 350,000 | 350,000 | 350,000 | - | 750,000 | 750,000 | 750,000 | 750,000 | - | 4,050,000 |
| 327 | Sunnyside | - | - | - | 30,000 | 30,000 | 50,000 | 50,000 | 50,000 | 50,000 | - | - | 260,000 |
| 543 | Chesire Tank Upgrade-Zone A | - | - | - | - | - | - | 700,000 | - | - | - | - | 700,000 |
| 167 | Water System Optimization | - | - | - | - | - | - | - | 20,000 | - | - | - | 20,000 |
| 538 | Franklin WL Replacement | - | - | - | - | - | - | - | 326,500 | - | - | - | 326,500 |
| 75 | Water System Master Plan | - | - | - | 75,000 | - | - | - | 75,000 | - | - | 75,000 | 225,000 |
| 486 | West/Center Street Waterline 2650ft @300/LF | - | - | - | - | - | - | - | - | - | 500,000 | - | 500,000 |
| | Elm St. Waterline | - | - | - | - | - | - | - | 115,000 | - | - | - | 115,000 |
| 50 | Mohawk Dr. Waterline | - | - | - | - | - | - | - | - | 44,000 | - | - | 44,000 |
| 495 | Pinal/Papago Alley Waterline | - | - | - | - | - | - | - | - | - | 37,000 | - | 37,000 |
| 20 | Park St.Waterline (Santa Fe to Dale) | - | - | - | - | - | - | - | - | - | 80,000 | - | 80,000 |
| 161 | Aspen Waterline (Sitgreaves/Aztec) | - | - | - | - | - | - | - | - | - | - | 40,000 | 40,000 |
| 73 | Pine Del Waterline | - | - | - | - | - | - | - | - | 150,000 | 450,000 | - | 600,000 |
| 106 | Walapai Dr. Alley Waterline | - | - | - | - | - | - | - | - | - | 26,000 | - | 26,000 |
| 278 | Tombstone Ave./Alley Waterline | - | - | - | - | - | - | - | - | - | 40,000 | - | 40,000 |
| | Westside Detention Waterline Extension 3500 ft | - | - | - | - | - | - | - | - | - | 400,000 | - | 400,000 |
| | Lake Mary WTP treatment basin upgrades | - | - | - | - | - | - | - | - | - | - | 1,000,000 | 1,000,000 |
| | **Growth CIP Total** | **$ -** | **$ -** | **$500,000** | **$1,405,000** | **$530,000** | **$200,000** | **$8,950,000** | **$5,286,500** | **$8,444,000** | **$7,833,000** | **$1,265,000** | **$34,413,500** |

Taken from Table A-4: Allocated Water Capital Improvement Program

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Water Resources

The City's CIP identifies $26,700,000 to be spent on the first phase of the Red Gap Ranch water resources project over the next ten years. However, the first phase does not include any construction costs which are conservatively projected to total $200,000,000. Inclusion of only the Phase 1 costs in the water capacity fees could potentially understate the cost to serve new development. The extent to which capacity fees may fund completion of the Red Gap Ranch project is an important fiscal and policy decision. The water resources component includes two options for consideration:

- Option 1: Phase 1 of Red Gap Ranch **without** construction costs.
- Option 2: Phase 1 of Red Gap Ranch **with** construction costs.

Under Option 1, the City plans to spend $26,700,000 on the first phase of the Red Gap Ranch water resources project over the next ten years. Upon completion, the planned daily capacity is 13,389,904 gallons (based on 15,000 acre feet per year).

The cost per gallon for these planned water resources projects is $1.99 ($26,700,000/13,389,904 gallons = $1.99 per gallon).

## Figure 7-2: Water Resources Capital Improvement Program Allocated to New Growth – Option 1

| Project | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Red Gap Ranch drill 10 proving wells | $ - | $ - | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 |
| Red Gap Pump test of wells | - | - | - | - | - | - | 4,000,000 | 3,000,000 | 2,000,000 | - | - |
| Red Gap Pipeline & Wellfield Final Design | - | - | - | - | - | - | 800,000 | 800,000 | 800,000 | 900,000 | - |
| Red Gap Environmental Impact Study & S | - | - | - | - | - | - | - | - | 4,500,000 | 4,500,000 | - |
| Red Gap ROW Acquisition | - | - | 350,000 | 350,000 | 350,000 | - | 750,000 | 750,000 | 750,000 | 750,000 | - |
| **Total** | **$ -** | **$ -** | **$ 500,000** | **$ 500,000** | **$ 500,000** | **$ 150,000** | **$ 5,700,000** | **$ 4,700,000** | **$ 8,200,000** | **$ 6,300,000** | **$ 150,000** |

| | |
|---|---|
| **10 Year Total** | **$ 26,700,000** |
| Gallons of Capacity per Day* | 13,389,904 |
| **Cost per Gallon** | **$ 1.99** |

* Based on 15,000 acre feet per year.

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

Under Option 2, the City plans to spend a total of $226,700,000 on the Red Gap Ranch water resources project (including construction). Upon completion, the planned daily capacity is 13,389,904 gallons (based on 15,000 acre feet per year).

The cost per gallon for these planned water resources projects is $16.93 ($226,700,000 /13,389,904 gallons = $16.93 per gallon).

## Figure 7-3: Water Resources Capital Improvement Program Allocated to New Growth – Option 2

| Project | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Red Gap Ranch drill 10 proving wells | $ - | $ - | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 |
| Red Gap Pump test of wells | - | - | - | - | - | - | 4,000,000 | 3,000,000 | 2,000,000 | - | - |
| Red Gap Pipeline & Wellfield Final Design | - | - | - | - | - | - | 800,000 | 800,000 | 800,000 | 900,000 | - |
| Red Gap Environmental Impact Study & Statement | - | - | - | - | - | - | - | - | 4,500,000 | 4,500,000 | - |
| Red Gap ROW Acquisition | - | - | 350,000 | 350,000 | 350,000 | - | 750,000 | 750,000 | 750,000 | 750,000 | - |
| Red Gap Construction | - | - | - | - | - | - | - | - | - | - | 200,000,000 |
| **Total** | **$ -** | **$ -** | **$ 500,000** | **$ 500,000** | **$ 500,000** | **$ 150,000** | **$ 5,700,000** | **$ 4,700,000** | **$ 8,200,000** | **$ 6,300,000** | **$ 200,150,000** |

| | |
|---|---|
| **10 Year Total** | **$ 226,700,000** |
| Gallons of Capacity per Day* | 13,389,904 |
| **Cost per Gallon** | **$ 16.93** |

* Based on 15,000 acre feet per year.

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Water Production

The City plans to spend $6,800,000 on two wells over the next ten years. The wells are designed to produce 300 gallons per minute each. These wells will produce 864,000 gallons of water on a daily basis.

The cost per gallon for the planned water production projects is $7.87 ($6,800,000 /864,000 gallons = $7.87 per gallon).

### Figure 7-4: Water Production Capital Improvement Program Allocated to New Growth

| Project | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Well Pumphouse Buildings | $ - | $ - | $ - | $800,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| New Well and Pumphouse | - | - | - | - | - | 2,500,000 | - | - | - | 2,500,000 | - |
| Lake Mary WTP treatment basin upgrades | - | - | - | - | - | - | - | - | - | - | 1,000,000 |
| **Total** | **$ -** | **$ -** | **$ -** | **$800,000** | **$ -** | **$2,500,000** | **$ -** | **$ -** | **$ -** | **$2,500,000** | **$ 1,000,000** |
| | | | | | | | | | | **10 Year Total** | **$ 6,800,000** |
| | | | | | | | | | | Gallons of Capacity per Day | 864,000 |
| | | | | | | | | | | **Cost per Gallon** | **$ 7.87** |

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Water Storage

The City plans to spend $1,800,000 on two water storage tanks over the next ten years. The tanks will provide 2,000,000 gallons of combined storage.

The cost per gallon for the planned water storage project is $0.90 ($1,800,000/2,000,000 gallons = $0.90 per gallon).

### Figure 7-5: Water Storage Capital Improvement Program Allocated to New Growth

| Project | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chesire Tank Upgrade-Zone A | $ - | $ - | $ - | $ - | $ - | $ - | $ 700,000 | $ - | $ - | $ - | $ - |
| Railroad Springs Tank #3 - Zone A+ | - | - | - | - | - | - | - | 1,100,000 | - | - | - |
| **Total** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ 700,000** | **$ 1,100,000** | **$ -** | **$ -** | **$ -** |
| | | | | | | | | | | **10 Year Total** | **$ 1,800,000** |
| | | | | | | | | | | Gallons of Capacity Per Day | 2,000,000 |
| | | | | | | | | | | **Cost per Gallon** | **$ 0.90** |

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Water Distribution

The City plans to spend $2,468,500 on the water distribution projects over the next ten years. Discussions with City staff indicates these projects will provide sufficient capacity through FY2025. Based on projections of peak water demand from new development, new development over this period of time is projected to add the need for an additional 1,116,693 gallons of water.

The cost per gallon for the planned water distribution projects is $2.21 ($2,468,500 /1,116,693 gallons = $2.21 per gallon).

### Figure 7-6: Water Distribution Capital Improvement Program Allocated to New Growth

| Project | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sunnyside | $ - | $ - | $ - | $ 30,000 | $ 30,000 | $ 50,000 | $ 50,000 | $ 50,000 | $ 50,000 | $ - | $ - |
| Franklin WL Replacement | - | - | - | - | - | - | - | 326,500 | - | - | - |
| West/Center Street Waterline 2650ft @30 | - | - | - | - | - | - | - | - | - | 500,000 | - |
| Elm St. Waterline | - | - | - | - | - | - | - | 115,000 | - | - | - |
| Mohawk Dr. Waterline | - | - | - | - | - | - | - | - | 44,000 | - | - |
| Pinal/Papago Alley Waterline | - | - | - | - | - | - | - | - | - | 37,000 | - |
| Park St.Waterline (Santa Fe to Dale) | - | - | - | - | - | - | - | - | - | 80,000 | - |
| Aspen Waterline (Sitgreaves/Aztec) | - | - | - | - | - | - | - | - | - | - | 40,000 |
| Pine Del Waterline | - | - | - | - | - | - | - | - | 150,000 | 450,000 | - |
| Walapai Dr. Alley Waterline | - | - | - | - | - | - | - | - | - | 26,000 | - |
| Tombstone Ave./Alley Waterline | - | - | - | - | - | - | - | - | - | 40,000 | - |
| Westside Detention Waterline Extension 3 | - | - | - | - | - | - | - | - | - | 400,000 | - |
| **Total** | **$ -** | **$ -** | **$ -** | **$ 30,000** | **$ 30,000** | **$ 50,000** | **$ 50,000** | **$ 491,500** | **$ 244,000** | **$ 1,533,000** | **$ 40,000** |

| | |
|---|---|
| **10 Year Total** | **$ 2,468,500** |
| Net Increase in Peak Daily Gallons FY2010-FY2025 | 1,116,693 |
| **Cost per Gallon** | **$ 2.21** |

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Reclaimed Water

The City plans to spend $600,000 on reclaimed water projects over the next ten years. Discussions with City staff indicates these projects will provide sufficient capacity through FY2020. Based on projections of peak water demand from new development, new development over this period of time is projected to add the need for an additional 260,075 gallons of water.

The cost per gallon for these projects is $2.31 ($600,000 /260,075 gallons = $2.31 per gallon).

### Figure 7-7: Reclaimed Water Capital Improvement Program Allocated to New Growth

| Project | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Expand Reclaim System | $ - | $ - | $ - | $ - | $ - | $ 50,000 | $ 50,000 | $ 50,000 | $ 50,000 | $ - | $ - |
| Reclaim Storage | - | - | - | - | - | - | 400,000 | - | - | - | - |
| **Total** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ 50,000** | **$ 450,000** | **$ 50,000** | **$ 50,000** | **$ -** | **$ -** |

| | |
|---|---|
| **10 Year Total** | **$ 600,000** |
| Net Increase in Daily Peak Gallons FY2010-FY2020 | 260,075 |
| **Cost per Gallon** | **$ 2.31** |

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Planning and Study Efforts

The City plans to spend $245,000 on studies and planning efforts for the water system over the next ten years for new development. The City updates its Master Plan every three years. Thus, the plan completed in FY2020 will serve new development through FY2023. Based on projections of peak water demand from new development, new development over this period of time is projected to add the need for an additional 765,867 gallons of water.

The cost per gallon for these studies and planning efforts is $0.32 ($245,000 /765,867 gallons = $0.32 per gallon).

### Figure 7-8: Water Studies and Planning Efforts Capital Improvement Program Allocated to New Growth

| Project | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Water System Optimization | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 20,000 | $ - | $ - | $ - |
| Water System Master Plan | - | - | - | 75,000 | - | - | - | 75,000 | - | - | 75,000 |
| **Total** | **$ -** | **$ -** | **$ -** | **$ 75,000** | **$ -** | **$ -** | **$ -** | **$ 95,000** | **$ -** | **$ -** | **$ 75,000** |
| | | | | | | | | | | **10 Year Total** | **$ 245,000** |
| | | | | | | | | | Net Increase in Daily Peak Gallons FY2010-FY2023 | | 765,867 |
| | | | | | | | | | | **Cost per Gallon** | **$ 0.32** |

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Cost Summary

The figures below summarize the demand factors and cost per gallon for additional water capacity for the following options:

- Option 1: Phase 1 of Red Gap Ranch **without** construction costs.
- Option 2: Phase 1 of Red Gap Ranch **with** construction costs.

Figure 7-9: Water Capacity Fees Demand and Cost Summary – Option 1

| Demand Summary | Factors: |
|---|---|
| Gallons per Day per Residential Connection* | 236 |
| Residential Peaking Factor** | 1.6 |
| **Gallon per Peak Day per Single Family Connection** | **378** |

| Cost Summary | |
|---|---|
| Water Resources Cost per Gallon | $ 1.99 |
| Water Production Cost per Gallon | 7.87 |
| Water Storage Cost per Gallon | 0.90 |
| Water Distribution Cost per Gallon | 2.21 |
| Study and Planning Efforts Cost per Gallon | 0.32 |
| Reclaimed Water Cost per Gallon | 2.31 |
| **Net Capital Cost per Gallon of Capacity** | **$ 15.60** |

* Source: City of Flagstaff, *2009 Report to Water Commission*.
** Source: Table A-10: Water Peaking Factors by Customer Class.

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

Figure 7-10: Water Capacity Fees Demand and Cost Summary – Option 2

| Demand Summary | Factors: |
|---|---|
| Gallons per Day per Residential Connection* | 236 |
| Residential Peaking Factor** | 1.6 |
| **Gallon per Peak Day per Single Family Connection** | **378** |

| Cost Summary | |
|---|---|
| Water Resources Cost per Gallon | $ 16.93 |
| Water Production Cost per Gallon | 7.87 |
| Water Storage Cost per Gallon | 0.90 |
| Water Distribution Cost per Gallon | 2.21 |
| Study and Planning Efforts Cost per Gallon | 0.32 |
| Reclaimed Water Cost per Gallon | 2.31 |
| **Net Capital Cost per Gallon of Capacity** | **$ 30.54** |

* Source: City of Flagstaff, *2009 Report to Water Commission*.
** Source: Table A-10: Water Peaking Factors by Customer Class.

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Water Capacity Fees

The water capacity fees are based on water meter sizes. A capacity ratio by meter size is used to convert the residential equivalent fee for a ¾ inch meter into a proportionate fee for larger meter sizes. The capacity ratios by meter size are consistent with the ratios used in the utility rate model.

Using a ¾ inch water meter under Option 1 as an example: 378 peak gallons per residential connection (from Figure 7-9) x $15.60 per gallon (from Figure 7-9) x 1.0 demand ratio = $5,891 per ¾ inch water meter.

### Figure 7-11: Water Capacity Fees – Option 1

| Water Meter Size (inches) | Capacity Ratio* | Resources | Production | Storage | Distribution | Planning | Water | TOTAL | Current |
|---|---|---|---|---|---|---|---|---|---|
| 3/4" | 1.0 | $ 753 | $ 2,972 | $ 340 | $ 835 | $ 121 | $ 871 | $ 5,891 | $ 2,160 |
| 1" | 1.7 | $ 1,255 | $ 4,953 | $ 566 | $ 1,391 | $ 201 | $ 1,452 | $ 9,819 | $ 3,600 |
| 1 1/2" | 3.3 | $ 2,510 | $ 9,906 | $ 1,133 | $ 2,782 | $ 403 | $ 2,904 | $ 19,638 | $ 7,200 |
| 2" | 5.3 | $ 4,016 | $ 15,850 | $ 1,812 | $ 4,452 | $ 644 | $ 4,646 | $ 31,420 | $11,520 |
| 3.0" | 10.0 | $ 7,529 | $ 29,719 | $ 3,398 | $ 8,347 | $ 1,208 | $ 8,711 | $ 58,913 | $21,600 |
| 4.0" | 16.7 | $ 12,549 | $ 49,531 | $ 5,664 | $ 13,912 | $ 2,013 | $14,519 | $ 98,188 | $36,000 |
| 6.0" | 33.3 | $ 25,098 | $ 99,062 | $11,328 | $ 27,823 | $ 4,026 | $29,038 | $196,376 | $72,000 |
| 8.0" | 53.3 | $ 40,157 | $ 158,499 | $18,125 | $ 44,517 | $ 6,442 | $46,461 | $314,201 | Calculate |
| 10.0" | 76.7 | $ 57,726 | $ 227,842 | $26,054 | $ 63,994 | $ 9,261 | $66,787 | $451,664 | Calculate |

* Based on water meter equivalents developed as part of rate study.

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

### Figure 7-12: Water Capacity Fees – Option 2

| Water Meter Size (inches) | Capacity Ratio* | Resources | Production | Storage | Distribution | Planning | Water | TOTAL | Current |
|---|---|---|---|---|---|---|---|---|---|
| 3/4" | 1.0 | $ 6,393 | $ 2,972 | $ 340 | $ 835 | $ 121 | $ 871 | $ 11,531 | $ 2,160 |
| 1" | 1.7 | $ 10,655 | $ 4,953 | $ 566 | $ 1,391 | $ 201 | $ 1,452 | $ 19,219 | $ 3,600 |
| 1 1/2" | 3.3 | $ 21,310 | $ 9,906 | $ 1,133 | $ 2,782 | $ 403 | $ 2,904 | $ 38,438 | $ 7,200 |
| 2" | 5.3 | $ 34,096 | $ 15,850 | $ 1,812 | $ 4,452 | $ 644 | $ 4,646 | $ 61,500 | $11,520 |
| 3.0" | 10.0 | $ 63,930 | $ 29,719 | $ 3,398 | $ 8,347 | $ 1,208 | $ 8,711 | $115,313 | $21,600 |
| 4.0" | 16.7 | $ 106,550 | $ 49,531 | $ 5,664 | $ 13,912 | $ 2,013 | $14,519 | $192,189 | $36,000 |
| 6.0" | 33.3 | $ 213,101 | $ 99,062 | $11,328 | $ 27,823 | $ 4,026 | $29,038 | $384,378 | $72,000 |
| 8.0" | 53.3 | $ 340,961 | $ 158,499 | $18,125 | $ 44,517 | $ 6,442 | $46,461 | $615,005 | Calculate |
| 10.0" | 76.7 | $ 490,132 | $ 227,842 | $26,054 | $ 63,994 | $ 9,261 | $66,787 | $884,070 | Calculate |

* Based on water meter equivalents developed as part of rate study.

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

# Wastewater Capacity Fees

The figure below lists the wastewater CIP attributable to new development as prepared by City staff. As a part of the rate setting process, CIP projects are identified as growth-related, existing needs (O&M) or a percentage of both. The CIP presented below represents the capital project requirements needed to meet projected growth. The O&M portion will be utilized in the revenue requirements analysis for the rate analysis.

Figure 8-1: Wastewater Capital Improvement Program Allocated to New Growth

| ID # | Project | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 523 | Well Pumphouse Buildings | $ - | $ - | $ - | $ 800,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 800,000 |
| | New Well and Pumphouse | - | - | - | - | - | - | 2,500,000 | - | - | - | - | 2,500,000 |
| | Red Gap Ranch drill 10 proving wells | - | - | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 1,350,000 |
| | Red Gap Pump test of wells | - | - | - | - | - | - | 4,000,000 | 3,000,000 | 2,000,000 | - | - | 9,000,000 |
| | GO BONDS | - | - | - | - | - | - | 800,000 | 800,000 | 800,000 | 900,000 | - | 3,300,000 |
| | Red Gap Environmental Impact Study & Statement | - | - | - | - | - | - | - | - | 4,500,000 | 4,500,000 | - | 9,000,000 |
| | Red Gap ROW Acquisition | - | - | 350,000 | 350,000 | 350,000 | - | 750,000 | 750,000 | 750,000 | 750,000 | - | 4,050,000 |
| 327 | Sunnyside | - | - | - | 30,000 | 30,000 | 50,000 | 50,000 | 50,000 | 50,000 | - | - | 260,000 |
| 543 | Chesire Tank Upgrade-Zone A | - | - | - | - | - | - | 700,000 | - | - | - | - | 700,000 |
| 167 | Water System Optimization | - | - | - | - | - | - | - | 20,000 | - | - | - | 20,000 |
| 538 | Franklin WL Replacement | - | - | - | - | - | - | - | 326,500 | - | - | - | 326,500 |
| 75 | Water System Master Plan | - | - | - | 75,000 | - | - | - | 75,000 | - | - | 75,000 | 225,000 |
| 486 | West/Center Street Waterline 2650ft @300/LF | - | - | - | - | - | - | - | - | - | 500,000 | - | 500,000 |
| | Elm St. Waterline | - | - | - | - | - | - | - | 115,000 | - | - | - | 115,000 |
| 50 | Mohawk Dr. Waterline | - | - | - | - | - | - | - | - | 44,000 | - | - | 44,000 |
| 495 | Pinal/Papago Alley Waterline | - | - | - | - | - | - | - | - | - | 37,000 | - | 37,000 |
| 20 | Park St.Waterline (Santa Fe to Dale) | - | - | - | - | - | - | - | - | - | 80,000 | - | 80,000 |
| 161 | Aspen Waterline (Sitgreaves/Aztec) | - | - | - | - | - | - | - | - | - | - | 40,000 | 40,000 |
| 73 | Pine Del Waterline | - | - | - | - | - | - | - | - | 150,000 | 450,000 | - | 600,000 |
| 106 | Walapai Dr. Alley Waterline | - | - | - | - | - | - | - | - | - | 26,000 | - | 26,000 |
| 278 | Tombstone Ave./Alley Waterline | - | - | - | - | - | - | - | - | - | 40,000 | - | 40,000 |
| | Westside Detention Waterline Extension 3500 ft | - | - | - | - | - | - | - | - | - | 400,000 | - | 400,000 |
| | Lake Mary WTP treatment basin upgrades | - | - | - | - | - | - | - | - | - | - | 1,000,000 | 1,000,000 |
| | **Growth CIP Total** | **$ -** | **$ -** | **$500,000** | **$1,405,000** | **$530,000** | **$200,000** | **$8,950,000** | **$5,286,500** | **$8,444,000** | **$7,833,000** | **$1,265,000** | **$34,413,500** |

Taken from Table A-4: Allocated Water Capital Improvement Program

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Treatment

The City recently invested $39 million in upgrading the Wildcat Hill Wastewater Treatment Plant. Approximately 80% of this project was related to wastewater treatment. The plant is currently operating at approximately 80% of committed capacity. Given the available capacity for new development to utilize, the buy-in methodology is used to calculate this component of the Wastewater Capacity Fee.

The original cost to the City for the wastewater components ($31,400,582) is divided by the capacity of the plant (6,000,000 gallons) which yields a buy-in cost of $5.23 per gallon ($31,400,582/6,000,000 gallons = $5.23).

Figure 8-2: Treatment Buy-in Component

| | |
|---|---|
| Wildcat Hill Treatment Plant Upgrade* | $31,400,582 |
| Total Gallons of Capacity | 6,000,000 |
| Cost per Gallon | $5.23 |

* Original cost. Does not include portion attributable to reclaimed water.

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

The City plans to spend $2,240,000 on treatment upgrade projects over the next ten years. Based on projections of peak wastewater demand from new development, new development is projected to add the need for an additional 957,637 gallons of wastewater over the next ten years.

The cost per gallon for the planned treatment upgrades is $2.34 ($2,240,000 /957,637 gallons = $2.34 per gallon).

Figure 8-3: Treatment Upgrades Allocated to New Growth

| Project | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Third Digester at Wildcat | $ - | $ - | $ - | $ - | $ - | $ 150,000 | $ 300,000 | $ 450,000 | $ - | $ - | $ - |
| Rio Filter Expansion,TF-1 | - | - | - | - | - | - | - | - | - | - | 500,000 |
| Solids Disposal at Wildcat | - | - | - | - | - | - | - | - | 640,000 | - | - |
| Back up Generator at Rio | - | - | - | - | - | - | - | - | - | - | 200,000 |
| **Total** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ 150,000** | **$ 300,000** | **$ 450,000** | **$ 640,000** | **$ -** | **$ 700,000** |

| | |
|---|---|
| **10 Year Total** | **$ 2,240,000** |
| Net Increase in Daily Peak Gallons FY2010-FY2020 | 957,637 |
| **Cost per Gallon** | **$ 2.34** |

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Debt Service Credit

To avoid "double payment" for the Wildcat Hill Treatment Plant expansion through both the Wastewater Capacity Fees and rates, a future debt service credit is calculated and deducted from the Wastewater Capacity Fees. Due to the time value of future payments, a net present value adjustment equivalent to the bond's interest rate is used in the calculation of the credit. The credit is calculated to be $1.55 per gallon on a net present value basis.

Figure 8-4: Debt Service Credit

| Fiscal Year | Principal Payment | Projected Peak Gallons | Credit per Gallon |
|---|---|---|---|
| 2010 | $ 1,358,015 | 8,796,093 | $ 0.15 |
| 2011 | 1,358,015 | 8,813,685 | 0.15 |
| 2012 | 1,358,015 | 8,848,940 | 0.15 |
| 2013 | 1,358,015 | 8,902,034 | 0.15 |
| 2014 | 1,358,015 | 8,973,250 | 0.15 |
| 2015 | 1,358,015 | 9,062,983 | 0.15 |
| 2016 | 1,358,015 | 9,171,738 | 0.15 |
| 2017 | 1,358,015 | 9,300,143 | 0.15 |
| 2018 | 1,358,015 | 9,448,945 | 0.14 |
| 2019 | 1,358,015 | 9,600,128 | 0.14 |
| 2020 | 1,358,015 | 9,753,730 | 0.14 |
| 2021 | 1,358,015 | 9,909,790 | 0.14 |
| 2022 | 1,358,015 | 10,068,347 | 0.13 |
| 2023 | 1,358,015 | 10,229,440 | 0.13 |
| | | Interest Rate | 4% |
| | | **Net Present Value** | **$1.55** |

Taken from Table A-3: Debt Service

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Interceptors

The City plans to spend $910,000 on interceptor projects over the next ten years which are the result of new development. Based on projections of peak wastewater demand from new development, new development is projected to add the need for an additional 957,637 gallons of wastewater over the next ten years.

The cost per gallon for the planned interceptors is $0.95 ($910,000/957,637 gallons = $0.95 per gallon).

Figure 8-5: Interceptors Allocated to New Growth

| Project | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| West Side Interceptor Improvements | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 700,000 | $ - |
| Rio Outfall Interceptor Improvements | - | - | - | - | - | - | - | - | - | 105,000 | 105,000 |
| **Total** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ 805,000** | **$ 105,000** |
| | | | | | | | | | | **10 Year Total** | **$ 910,000** |
| | | | | | | | | | | Net Increase in Daily Peak Gallons FY2010-FY2020 | 957,637 |
| | | | | | | | | | | **Cost per Gallon** | **$ 0.95** |

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Collection

The City plans to spend $1,164,032 on collection projects over the next ten years which are the result of new development. Based on projections of peak wastewater demand from new development, new development is projected to add the need for an additional 957,637 gallons of wastewater over the next ten years.

The cost per gallon for the planned collection projects is $1.22 ($1,164,032 /957,637 gallons = $1.22 per gallon).

### Figure 8-6: Collection Lines Allocated to New Growth

| Project | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ellery Sewer Replacement | - | - | - | - | 380,000 | - | - | - | - | - | - |
| Circle View Sewer | - | - | - | - | - | - | - | - | 135,357 | - | - |
| Terrace/Birch Sewer | - | - | - | - | - | - | - | - | 311,500 | - | - |
| Upper Greenlaw Phase 2 | - | - | - | - | - | - | - | - | - | 337,175 | - |
| **Growth Collection Total** | **$ -** | **$ -** | **$ -** | **$ -** | **$ 380,000** | **$ -** | **$ -** | **$ -** | **$ 446,857** | **$ 337,175** | **$ -** |
| | | | | | | | | | | **10 Year Total** | **$ 1,164,032** |
| | | | | | | | | | | Net Increase in Daily Peak Gallons FY2010-FY2020 | 957,637 |
| | | | | | | | | | | **Cost per Gallon** | **$ 1.22** |

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Planning and Study Efforts

The City plans to spend $90,000 on wastewater studies and planning efforts over the next ten years as a result of new development. The City updates its master plan every three years. Thus, the plan completed in FY2018 will serve new development through FY2021. Based on projections of peak wastewater demand, new development is projected to add the need for an additional 1,113,697 gallons of wastewater through FY2021.

The cost per gallon for the planned collection projects is $0.08 ($90,000 /1,113,697 gallons = $0.08 per gallon).

### Figure 8-7: Planning and Study Efforts Allocated to New Growth

| Project | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Rate Study-every 3 years | $ - | $ - | $ 30,000 | $ - | $ - | $ 30,000 | $ - | $ - | $ 30,000 | $ - | $ - |
| | | | | | | | | | | **10 Year Total** | **$ 90,000** |
| | | | | | | | | | | Net Increase in Daily Peak Gallons FY2010-FY2021 | 1,113,697 |
| | | | | | | | | | | **Cost per Gallon** | **$ 0.08** |

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Cost Summary

The figure below summarizes the demand factors and cost per gallon for additional wastewater capacity.

Figure 8-8: Wastewater Capacity Fees Demand and Cost Summary

| Demand Summary | Factors: |
|---|---|
| Gallons of Water Per Peak Day per Residential Connection* | 378 |
| Percentage of Water Returned to Wastewater System** | 87% |
| **Gallon per Peak Day per Single Family Connection** | **329** |

| Cost Summary | |
|---|---|
| Treatment Upgrades Cost per Gallon | $ 7.57 |
| Less Credit for Future Debt Service Payments | (1.55) |
| Interceptor Cost per Gallon | 0.95 |
| Collection Cost per Gallon | 1.22 |
| Study and Planning Efforts Cost per Gallon | 0.08 |
| **Net Capital Cost per Gallon of Capacity** | **$ 8.27** |

* Water Capacity Fees.
** Based on current percentage of water returned to wastewater system.

Sources: City of Flagstaff; Wildan Financial Services; TischlerBise.

## Wastewater Capacity Fees

The wastewater capacity fees are based on water meter sizes. A capacity ratio by meter size is used to convert the residential equivalent fee for a ¾ inch meter into a proportionate fee for larger meter sizes. The capacity ratios by meter size are consistent with the ratios used in the City's utility rate model.

Using a ¾ inch water meter as an example: 329 gallons per peak day per residential connection (from Figure 8-8) x $8.27 per gallon (from Figure 8-8) x 1.0 demand ratio = $3,126 per ¾ inch water meter.

Figure 8-9: Wastewater Capacity Fees

| Water Meter Size (inches) | Capacity Ratio* | Treatment | Interceptor | Collection | Planning | TOTAL | Current |
|---|---|---|---|---|---|---|---|
| 3/4" | 1.0 | $ 2,277 | $ 359 | $ 459 | $ 31 | $ 3,126 | $ 2,410 |
| 1" | 1.7 | $ 3,794 | $ 599 | $ 766 | $ 51 | $ 5,210 | $ 4,300 |
| 1 1/2" | 3.3 | $ 7,588 | $ 1,197 | $ 1,532 | $ 102 | $ 10,419 | $ 8,600 |
| 2" | 5.3 | $ 12,141 | $ 1,916 | $ 2,450 | $ 163 | $ 16,671 | $13,760 |
| 3.0" | 10.0 | $ 22,765 | $ 3,592 | $ 4,595 | $ 305 | $ 31,257 | $27,520 |
| 4.0" | 16.7 | $ 37,942 | $ 5,987 | $ 7,658 | $ 509 | $ 52,095 | $42,931 |
| 6.0" | 33.3 | $ 75,884 | $ 11,973 | $ 15,316 | $ 1,018 | $104,191 | $85,862 |
| 8.0" | 53.3 | $121,414 | $ 19,157 | $ 24,505 | $ 1,629 | $166,705 | Calculate |
| 10.0" | 76.7 | $174,532 | $ 27,538 | $ 35,226 | $ 2,342 | $239,639 | Calculate |

* Based on water meter equivalents developed as part of rate study.

Sources: City of Flagstaff; Willdan Financial Services, TischlerBise.

# Service Fees

In addition to the utility rate analysis, conducted by the consulting team, the City's Utility department reviewed their existing service fee schedule for possible updates and additions. Figure 9-1 outlines the department's proposed service fees.

Figure 9-1: Proposed Service Fees

| Description | Existing Service Fee | Proposed Service Fee |
|---|---|---|
| New Customer turn on/off working hours-account activation fee for new customer at existing location | $24.00 | $27.00 |
| Emergency turn on/off working hours | $24.00 | $27.00 |
| New Customer turn on/off after hours | $65.00 | $70.00 |
| Collection/ Non Payment charge | $24.00 | $30.00 |
| Existing Meter Testing Rate<br>Accuracy test (at customer's request) of a meter permanently connected to the water system. The fee is waived if meter testing reveals the meter was reading inaccurately | $74.00 | $110.00 |
| Delinquent Service Charge: Customer Notice<br>Courtesy notice delivered via United States Postal Service (regular mail) to property alerting customer of payment due date to avoid termination of water service. | - | $14.00 |
| Non Payment Turn-off Delinquent Service Charge: Water Meter Lock<br>Meter locked for non-payment of water bill. | $24.00 | $56.00 |
| Returned Check (Insufficient Funds) Service Charge: | - | $28.00 |
| Backflow Prevention Permit Fee<br>Inspection of backflow assembly whose installation has been authorized by permit. | - | $87.00 |
| Backflow Compliance Fee<br>Additional site visit after customer has failed to correct backflow or reclaimed meter-related deficiencies for which they have received prior written notice. This fee recovers the cost of the additional field visit. | - | $87.00 |
| Unauthorized Connection Fee<br>For illegal service connections made to the public water main. Payable at the time of violation | - | Twice the System Capacity and Resource Fees |
| Large Meter Vault – Design Fee for Non-Std<br>City of Flagstaff may provide design and construction documents for the large meter vaults required by the special needs of Developer-required facilities. | - | Billed at Cost |